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United States  
Department of  
Agriculture

Forest Service

Tongass  
National Forest  
R10-MB-187c

September 1992



# Alaska Pulp Corporation Long-Term Timber Sale Contract

Southeast Chichagof Project Area  
Final Environmental Impact Statement

OCT 1 1992

Volume III: Appendices, Part 3







# **Appendix L**

## **Silvicultural Prescriptions**



INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 1520 of the SE Chichagof Timber Sale

STAND # 9, 22

VCU 230

MANAGEMENT AREA C34

ACRES 16 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 30 Photo #'s 1084-80

Scale: 1:12000

1/4 Quad ID: SITD5SE

SITE CHARACTERISTICS:

Elevation: 150 to 600 ft. Aspect: NW to NE Slope: 40 to 60%

Landform: Broken Mountain Slopes

Slope Configuration: Convex Site Index (Farr): 64

Plant Association: Western hemlock-yellow cedar/blueberry/skunk cabbage.

Soil: SMU = 3663C

Parent Material: Ablation till over compact till or colluvium

Soil Depth cm: 150 Soil Texture: Silt loam to mucky silt loam

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 08/14/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Some weather damage evident. Light mistletoe. Minor stem decay.

Species Composition (trees 5+" DBH): 39 %WH 9 %MH 45 %AC 7 %SS

Stand Structure: Uneven aged hemlock/cedar. Saps/poles are confined mainly to canopy gaps. Heavier brush higher on slopes is precluding natural regeneration. Cedar is showing signs of decline, but mortality and defect is generally low.

Ave. Height: 78 ft. Basal Area: 291 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 12 in. Ave. TPA (trees 5+" DBH): 345

Ground Cover: 40% to 70% blueberry. 5%-15% rusty menziesia.

Total Net Sawlog Vol/Acre: 25.9 MBF Total Unit Vol: 507 MBF

Volume by Species: H 17.5 MBF AC 5.6 MBF SS 2.8 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

No concerns in Soils, Fisheries, or Hydrology.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees or partial cut. Partial cut is not feasible due to heavy brush cover over most of the unit, which would preclude natural regeneration. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Western hemlock is anticipated to regenerate naturally over most of the unit; localized areas of wetter soils dominated by skunk cabbage will likely take longer to reach adequate stocking. Cedar is expected to be a minor component in the new stand, due to limitations in regeneration.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed from Rd.#7605 by temporary spur road. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. May need multiple or artificial guy anchors due to small trees and landing location's proximity to muskeg.

**Unit Boundary:** Provide for windfirm boundary, particularly along east and north boundaries.

**Streamside Management:** No concerns. Unit has no identified stream channels within or immediately adjacent to boundaries.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Close, waterbar, and grass-seed temporary roads after use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed at this time. Depending on adequacy of regeneration in wetter areas, may need to consider spot planting cedar in the future.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. It is likely that vegetation management will not be required for this unit.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate need for spot planting wetter areas if regen. inadequate	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1521 of the SE Chichagof Timber Sale

STAND # 9, 22

VCU 230

MANAGEMENT AREA C34

ACRES 12 Determined How: GIS By Whom: T. Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-22

Scale: 1:12000

1/4 Quad ID: SITD5SE

SITE CHARACTERISTICS:

Elevation: 150 to 600 ft. Aspect: NW to NE Slope: 30 to 60%

Landform: Broken mountain slope

Slope Configuration: Convex Site Index (Farr): 66

Plant Association: Western hemlock-yellow cedar/blueberry/skunk cabbage.

Soil: SMU =3663C

Parent Material: Ablation till over compact till or colluvium.

Soil Depth cm: 150 Soil Texture: Silt loam to mucky silt loam.

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 08/14/91

Stand History: Wind processes appear to be the major stand development influence.

Potential Windthrow Hazard: Moderate

Damaging Agents: Some weather damage evident. Light mistletoe. Minor stem decay.

Species Composition (trees 5+" DBH): 39 %WH 9 %MH 45 %AC 7 %SS

Stand Structure: Uneven aged; hemlock/cedar. Saps/poles are scatteeed and not uniformly distributed. Heavy brush higher on slopes precluding seedlings.

Cedar is showing signs of decline, but mortality and defect is generally low.

Ave. Height: 78 ft. Basal Area: 291 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 12 in. Ave. TPA (trees 5+" DBH): 345

Ground Cover: 40%-70% blueberry, 5%-15% rusty menziesia.

Total Net Sawlog Vol/Acre: 25.9 MBF Total Unit Vol: 363 MBF

Volume by Species: H 17.5 MBF AC 5.6 MBF SS 2.8 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

No concerns in Fisheries or Hydrology. Soils: steep slopes in east part of unit; recommend full suspension. Ensure that boundary is above slope break of v-notch along west boundary.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees or partial cut. Partial cut is not feasible due to heavy brush cover over most of the unit, which would preclude natural regeneration. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock anticipated to regenerate with minor amount of cedar. Localized wetter areas will likely regenerate slowly, and may need spot planting of cedar to fully stock these areas.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by 2 temporary spurs off Rd.#7605; close, waterbar, and grass-seed temporary roads after use.

**Logging System:** Designed for running skyline. May need multiple and/or artificial guy anchors due to small trees and muskeg adjacent to landing. Require full suspension. Require directional felling away from v-notch on east boundary.

**Unit Boundary:** Keep boundary above slope break of v-notch along the western boundary.

**Streamside Management:** No Class I or II streams located within or adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** Leave 2 snags per acre for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Seed temporary spurs once roads are closed and waterbarred.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed at this time. Depending on adequacy of regeneration in wetter areas, may need to consider spot planting cedar in the future.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. It is likely that vegetation management will not be required for this unit.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

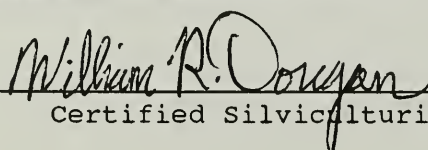
**Final Harvest:** Evaluate for harvest in 95-100 years.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate need for spot planting wetter areas if regen. inadequate	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92



UNIT # 1522 of the SE Chichagof Timber Sale

STAND # 9 VCU 230 MANAGEMENT AREA C34

ACRES 8 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-22

Scale: 1:12000

1/4 Quad ID: SITD5SW

**SITE CHARACTERISTICS:**

Elevation: 150 to 600 ft. Aspect: NW to NE Slope: 40 to 60+

Landform: Broken mountain slope.

Slope Configuration: Convex Site Index (Farr): 63

Plant Association: Western hemlock-yellow cedar/blueberry/skunk cabbage

Soil: SMU = 3663

Parent Material: Ablation till over compact till/colluvium.

Soil Depth cm: 150 Soil Texture: Silt loam to mucky silt loam.

Potential of Mass Failure: Moderate

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 08/14/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Some weather damage evident. Light mistletoe. Minor stem decay.

Species Composition (trees 5+" DBH): 39 %WH 9 %MH 45 %AC 7 %SS

Stand Structure: Uneven Aged - hemlock/cedar. Saps/poles are scattered and not uniformly distributed. Heavy brush higher on slopes precluding seedlings.

Cedar is showing signs of decline, but mortality and defect is generally low.

Ave. Height: 78 ft. Basal Area: 291 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 12 in. Ave. TPA (trees 5+" DBH) 345

Ground Cover: 40%-70% blueberry. 5%-15% rusty menziesia.

Total Net Sawlog Vol/Acre: 25.9 MBF Total Unit Vol: 252 MBF

Volume by Species: H 17.5 MBF AC 5.6 MBF SS 2.8 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

No concerns in fisheries or hydrology. For soils: ensure that boundary is clear of steep slopes and v-notch along west and east boundaries.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees or partial cut. Partial cut is not feasible due to heavy brush cover over most of the unit, which would preclude natural regeneration. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Western hemlock is anticipated to regenerate naturally over most of the unit; localized areas of wetter soils dominated by skunk cabbage will likely take longer to reach adequate stocking. Cedar is expected to be a minor component in the new stand, due to limitations in regeneration.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Accessed by 2 temporary spurs off Rd.#7605; close, waterbar, and grass-seed after harvest.

**Logging System:** Designed for running skyline. May need multiple and/or artificial guy anchors due to small trees and muskeg adjacent to landing. Require directional felling away from v-notch.

**Unit Boundary:** Keep boundary clear of steep slopes and v-notch on both west and east boundaries.

**Streamside Management:** No concerns. Unit has no identified stream channels within or immediately adjacent to boundaries.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Seed temporary spurs after obliterating.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed at this time. Depending on adequacy of regeneration in wetter areas, may need to consider spot planting cedar in the future.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. It is likely that vegetation management will not be required for this unit.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate need for spot planting wetter areas if regen. inadequate	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silvs
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

UNIT # 1540 of the SE Chichagof Timber Sale

STAND # 5, 9

VCU 230

MANAGEMENT AREA C34

ACRES 58 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-22

Scale: 1:12000

1/4 Quad ID: SITD5SW

**SITE CHARACTERISTICS:**

Elevation: 100 to 600 ft. Aspect: NW Slope: 30 to 45 %

Landform: Broken mountain slopes & frequently dissected footslopes/alluvial fans

Slope Configuration: Convex Site Index (Farr): 67

Plant Association: Western hemlock/blueberry/and western hemlock-yellow cedar/blueberry.

Soil: SMU = 3663C, 5293B.

Parent Material: Ablation till over compact till, colluvium and alluvium.

Soil Depth cm: 150 Soil Texture: silt loam to mucky silt loam.

Potential of Mass Failure: Low

**STAND CHARACTERISTICS:**

Stand Examination: R6 Quick Plot Type 11 Date 08/14/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Cedar on decline; med-high mistletoe. High defect and decay.

Lots of dead/dying tops and rot in some areas.

Species Composition (trees 5+" DBH): 45 %WH 9 %MH 40 %AC 6 %SS

Stand Structure: Uneven aged. Many small dbh trees with scattered larger trees.

Saps/poles are well stocked in some areas, scattered elsewhere. Few seedlings.

Ave. Height: 80 ft. Basal Area: 275 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 300

Ground Cover: 30%-70% blueberry; 5%-10% rusty menziesia; <5% copperbush and devil's club.

Total Net Sawlog Vol/Acre: 25.6 MBF Total Unit Vol: 1783 MBF

Volume by Species: H 17.8 MBF AC 5.2 MBF SS 2.6 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Hydrology: unit borders C.I. riparian zone in N.W. corner of unit. Protect riparian area and maintain designed buffer, BMPs 13.15 and 13.16. Fisheries: check for any unmapped rearing channels near the C.I. stream at layout. Adjust buffer to accommodate any unmapped channels. Soils: Split yard v-notches or full suspension across them. Recommend adjusting boundary around what appears to be a slide in east part of setting 6. Stay above slope break of notch along south boundary of setting 7. Wildlife: high quality (HSI=1.0) brown bear habitat in riparian to the N.W.; avoid expansion into this area.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries habitat and maintain Class I buffer along unit boundary.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees or partial cut. Lack of manageable understory and high incidence of mistletoe infection in hemlock makes partial cut infeasible. Clearcut with reserve trees provides for minimizing adverse impacts of mistletoe infection and provides for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by artificial regeneration. Hemlock will regenerate naturally, but anticipate regen. becoming infected with mistletoe. Localized wetter areas are confined to small openings and depressions and will be more difficult to regenerate naturally. Planting will ensure species diversity and will improve health of regenerating stand.

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**Marking Guide:** Designate minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce. Clump/group snags along backline and along buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by 2 temporary spurs off Rd.#7605; close, waterbar, and grass-seed after harvest.

**Logging System:** Designed for live skyline due to yarding distance (approx. 1,600 ft. EYD). Split yard or full suspension over v-notches. Directionally fell away from v-notches and Class I stream buffer.

**Unit Boundary:** N.W. corner of unit, protect riparian area and maintain designed buffers. Recommend adjusting bdry around what appears to be a slide in east part of setting 6. Stay above slope break of notch along south bdry of setting 7.

**Streamside Management:** Check for any unmapped rearing channels near the C.I. stream during layout. Adjust buffer to accomodate any unmapped channels. Ensure minimum 100 ft. buffer maintained intact along Class I stream.

**Wildlife Management:** High quality (HSI=1.0) brown bear habitat in riparian to the NW; avoid expansion into this area.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Close, waterbar, and grass-seed temporary roads after use.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar and spruce. Plant 12 x 12. Plant spruce on lower slopes near stream; plant cedar on higher slopes.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. Anticipate no need for vegetation management.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant cedar/spruce 12 x 12 spacing	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Survival exams 1 and 3 years after planting; natural regen. exam included in 3rd year	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish./Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 1590 of the SE Chichagof Timber Sale

STAND # 59

VCU 230

MANAGEMENT AREA C34

ACRES 66 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 31B Photo #'s 2384-151

Scale: 1:12000

1/4 Quad ID: SITD5SE

SITE CHARACTERISTICS:

Elevation: 240 to 1200 ft. Aspect: SE Slope: 30 to 70 %

Landform: Smooth infrequently dissected mountainslopes and footslopes.

Slope Configuration: Convex Site Index (Farr): 78

Plant Association: Western hemlock-yellow cedar/blueberry and western hemlock/blueberry/shield fern

Soil: SMU = 3557C, 5141B.

Parent Material: Colluvium/residuum/ablation till.

Soil Depth cm: 150 Soil Texture: Gravelly silt loam to loam.

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 08/06/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: High

Damaging Agents: Pini and pinicola- occasional. Butt rot common. Minor stem decay and mistletoe. Forks and sweeps minor but common.

Species Composition (trees 5+" DBH): 65 %WH %MH 25 %AC 10 %SS

Stand Structure: Uneven aged. Small dbh trees in lower elevations. Regen more than adequate in most areas. Heavy brush in lower elevations.

Ave. Height: 90 ft. Basal Area: 360 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 180

Ground Cover: 15%-25% blueberry; <10% rusty menziesia; shield fern common.

Total Net Sawlog Vol/Acre: 34.3 MBF Total Unit Vol: 2757 MBF

Volume by Species: H 17.6 MBF AC 8.7 MBF SS 8.0 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

No concerns for Fisheries, Hydrology or Soils. For Visuals: apply grass seed and fertilizer to cut/fill banks. Locate and design rockpits to minimize visual impact. Mit. effects sidecast slash within 30 ft. of road shoulders. Make limited adjustments to soften the visual effect of the side boundaries.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence and poor health/vigor of present stand makes partial cut infeasible. Clearcut with reserve trees provides for minimizing adverse impacts of current forest health and provides for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over the unit; cedar will likely be a minor component due to limitations in regeneration. Advanced regeneration not destroyed during yarding will contribute to stocking and structural diversity in new stand.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed on the north side by Rd.#7605, on the south side by Rd.#7568 and a spur off Rd.#7568. The spur off Rd.#7568 will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for live skyline uphill due to long reach (approx. 1300 ft.) and running skyline downhill. May be shovel in setting 6. Directionally fell away from v-notch on west side. May be combined with Unit 1593 if both are to be harvested.

**Unit Boundary:** May be combined with Unit 1593 if both are harvested. Presence of blowdown throughout stand indicates priority need to layout windfirm boundaries. Make limited adjustments to soften visual effect of side boundaries.

**Streamside Management:** No concerns. Unit has no identified stream channels within unit boundaries. Protect v-notch on west boundary during falling/yarding.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Apply grass seed and fertilizer to cut/fill slopes along roads. Close, waterbar, and grass-seed temporary road after harvest.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT #1620 of the SE Chichagof Timber Sale

STAND # 59, 104

VCU 230

MANAGEMENT AREA C34

ACRES 24 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 31B Photo #'s 2384-152

Scale: 1:12000

1/4 Quad ID: SITD5SE

SITE CHARACTERISTICS:

Elevation: 150 to 420 ft. Aspect: N to NE Slope: 5 to 35 %

Landform: Infrequently dissected ftslopes & mountains with mass wasting/avalanche

Slope Configuration: Convex Site Index (Farr): 96

Plant Association: Western hemlock/blueberry/devil's club and western hemlock/blueberry/shield fern.

Soil: SMU = 5121B, 3002E.

Parent Material: Colluvium/Residuum

Soil Depth cm: 150 Soil Texture: Gravelly silt loam.

Potential of Mass Failure: Low to Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None Date / /

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents:

Species Composition (trees 5+\" DBH): %WH %MH %AC %SS

Stand Structure: Uneven-aged hemlock stand. Highly productive site.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH):

Ground Cover: 40%-60% blueberry, 5%-30% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Fisheries - Unit borders Class I stream, check for any unmapped rearing channels during layout, Adjust buffer to protect any unchecked channels. BMP 12.6

Hydrology has no concerns. Soils - split yard on v-notches. There appears to be a v-notch in settting 5 that will either require full suspension or another landing. Wildlife - High quality (HSI=1.0) brown bear is located outside of the unit boundary to the east and west of the unit. Avoid expansion into this area upon verification of high quality habitat.



MANAGEMENT DIRECTION:

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

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Alternatives Considered: Regeneration harvest considered is clearcut with reserve trees. Clearcut with reserve trees will provide for the establishment and growth of desired trees (spruce and cedar) that are more shade intolerant than hemlock (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over the unit, with minor amounts of spruce and cedar regeneration anticipated.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit, or buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: Precommercial thinning is anticipated in this unit. Commercial thinning may be a viable option in the future, since site is highly productive.

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**Transportation System:** Accessed by temporary spur road off Rd.#7561. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Locate landings to split yard v-notches. Require full suspension over v-notches if unable to split yard. Require directional felling away from v-notches and Class I stream buffer.

**Unit Boundary:** Provide for windfirm boundaries, particularly on north side where unit borders TTRA buffer.

**Streamside Management:** Unit borders Class I stream, check for any unmapped rearing channels during layout, adjust buffer to protect any unmapped channels. BMP 12.6. Minimum 100 ft. buffer along Class I stream.

**Wildlife Management:** High quality (HSI=1.0) brown bear habitat is located outside of the unit to the east & west; avoid expansion of the unit into these areas.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity.

Refer to Marking Guide for instructions for marking.

**Erosion Control:** Close, waterbar, and grass-seed spur road after use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. Monitor north portion of unit for development of salmonberry/devil's club, which may influence stocking

**Precommercial Thinning:** Evaluate for PCT 15-17 years after harvest.

**Commercial Thinning:** Anticipate possibility of CT. Recommend stand exam 60-65 years after harvest to evaluate.

**Final Harvest:** 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate development of salmonberry/devil's club in unit	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
PCT exam 15-17 years after harvest		RD Silv.
PCT - based on results of exam		RD Silv.
Stand exam - evaluate need/opportunity for comm. thinning 60-65 years after harvest		RD Silv.
Monitor TTRA buffer for effectiveness/windfirmness		Fish./Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92



UNIT #1670 of the SE Chichagof Timber Sale

STAND #14, 118, 119

VCU 230

MANAGEMENT AREA C-34

ACRES 31 Determined How: GIS By Whom: T. Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 32B Photo #'s 2384-206

Scale: 1:12000

1/4 Quad ID: SITD5SE

**SITE CHARACTERISTICS:**

Elevation: 400 to 1000 ft. Aspect: NW to NE Slope: 30 to 80+ %

Landform: Smooth frequently dissected mt. slopes &amp; broken mt. slopes and hillsides.

Slope Configuration: convex Site Index (Farr): 84

Plant Association: Mixed Conifer/blueberry and mixed conifer/skunk cabbage.

Soil: SMU = 3221D, 3663C

Parent Material: colluvium, residuum and ablation till over compact till.

Soil Depth cm: 150 Soil Texture: Mucky and gravelly silt loam.

Potential of Mass Failure: moderate

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 08/15/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Low defect and weather damage. Cedar on decline and with moderate butt rot. Some forks, sweeps and dead tops,

Species Composition (trees 5+\" DBH): 95 %WH %MH 0 %AC 5 %SS

Stand Structure: Uneven aged. Large dbh trees, smaller in canopy gaps. An exception to this is in stand 14 which is fairly open with smaller dbh trees.

Saps and poles are mostly confined to canopy gaps.

Ave. Height: 60-120. Basal Area: 210 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): 12-22 in. Ave. TPA (trees 5+\" DBH): 100-400

Ground Cover: 60%-90% blueberry; &lt;10% rusty menziesia, devil's club and copperbush. &lt;5% salmonberry

Total Net Sawlog Vol/Acre: 17.4 MBF Total Unit Vol: 650 MBF

Volume by Species: H 16.1 MBF AC 0.8 MBF SS 0.5 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Hydrology-No concerns, maintain designed unit boundary along slope break to Class III v-notch on west side of unit, and 100 ft. buffer to the slope break of the gorge area to the Class II valley bottom channel. BMP 13.16 and 12.6

Fisheries-no concerns. Soils-split yard notches between settings 3&amp;4 and 4&amp;5.

Recommend full suspension in south third of setting 3 and partial suspension in remainder of unit to protect sensitive soils. Visuals-Locate and design rockpits to minimize visual impacts. Locate roads and landings to minimize visual impacts. Blend boundaries with topo. features and natural openings.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III v-notch and Class II stream channel along unit boundary.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees or partial cut. Poor vigor and health of overstory precludes the use of partial cut. Clearcut with reserve trees will minimize adverse impacts to forest health and will provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by artificial and natural regeneration. Plant cedar 20 x 20 (~100 TPA) over entire unit for species diversity. Hemlock/spruce will naturally regenerate over most of unit, with cedar occupying wetter sites. Anticipate spruce stocking heavier on lower slopes, with hemlock dominating upper slopes.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit and along TTRA buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for retention as recruitment trees. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by local road 75619. Road will be maintained at maintenance level 1 after harvest.

**Logging System:** Designed for slackline and running skyline. Require directional felling away from v-notches and Class II stream buffer. Split yard v-notches. Require partial suspension over entire unit due to high hazard soils, full suspension in setting 3.

**Unit Boundary:** Blend with topo. & natural openings. Locate west boundary along slope break above v-notch. Provide minimum 100 ft. buffer along Class II stream

**Streamside Management:** Protect Class III v-notch stream along west boundary and Class II TTRA buffer along north boundary. Split-yard v-notches within unit boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Road maintenance on level 1 road to ensure road/culvert stability.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar, 20 x 20 foot spacing. Ensure wetter areas are planted.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. Monitor development of salmonberry/devil's club on lower slopes.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant unit with cedar, 20 x 20 foot spacing following harvest	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural regen. during 3 year exam	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Road maintenance (culverts, ditches, etc.) on level 1 road		Eng.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*

Certified Silviculturist

Date: 08 /01 /92

UNIT # 1720 of the SE Chichagof Timber SaleSTAND # 38VCU 230MANAGEMENT AREA C34ACRES 21 Determined How: GIS By Whom: T. Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-25Scale: 1:120001/4 Quad ID: SITD5SW**SITE CHARACTERISTICS:**Elevation: 750 to 1200 ft. Aspect: NW Slope: 50 to 65 %Landform: Smooth, infrequently dissected mtslopes/frequently dissected ftslopes.Slope Configuration: Convex Site Index (Farr): 66Plant Association: Mt. hemlock/blueberry and Mt. hemlock/deer cabbage.Soil: SMU = 3551D, 5261BParent Material: Colluvium, residuum, ablation till and alluviumSoil Depth cm: 25-40 & 150 Soil Texture: Silt loam to gravelly loamPotential of Mass Failure: Moderate**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 08/01/91Stand History: Wind processes appear to be major stand development influencePotential Windthrow Hazard: LowDamaging Agents: Cedar showing decline. No mistletoe. Some dead/dying tops.Species Composition (trees 5+" DBH): 15 %WH 50 %MH 25 %AC 10 %SSStand Structure: 12"-22" dbh trees with scattered larger trees. Numerous wet areas scattered through stand with trees unevenly distributed. Saps/poles scattered but generally adequate stocking.Ave. Height: 68 ft. Basal Area: 330 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 300Ground Cover: 25%-40% blueberry. 40%-50% rusty menziesia and copperbush.Total Net Sawlog Vol/Acre: 12.1 MBF Total Unit Vol: 309 MBFVolume by Species: H 4.2 MBF AC 6.2 MBF SS 1.7 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**

Hydrology - Unit is on a dissected mountainslope, concern for sediment delivery to the Class I stream. Objective is to prevent erosion and sediment delivery to channel. Prescribe directional falling/split yarding on v-notches, BMPS 13.16 and 13.11. Fisheries - no concerns. Soils - Split yard on v-notch between settings. Recommend partial suspension at a minimum over entire unit due to heavy v-notching.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Minimize soil disturbance/sediment production to protect v-notches and Class I stream.

**Alternatives Considered:** Regeneration systems considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to economics of harvesting low volume, as well as the need to encourage cedar regeneration. Clearcut with reserve trees will provide for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Both hemlock and cedar are expected to regenerate following harvest; hemlock will likely dominate due to more successful regeneration strategy. Wetter openings currently dominated by sitka alder will be slow to regenerate. Spruce and cedar anticipated to be minor components in regeneration.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit and along buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for snag recruitment. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by a spur road off the end of Rd.#7605. This spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Require directional felling and split yarding away from v-notches. Require partial suspension over entire unit. Directionally fell away from Class I stream buffer. May need artificial guy anchors due to muskeg.

**Unit Boundary:** Incorporate TTRA buffer into boundary. Provide for windfirm boundaries.

**Streamside Management:** Layout minimum 100 ft. buffer along Class I stream. Split-yard v-notches within unit to minimize sediment delivery to stream.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Split-yard v-notches in unit, layout TTRA buffer to minimize sediment delivery to Class I stream. Close, waterbar, and grass-seed spur road.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Based on results of regen. surveys, monitor for need to spot plant cedar in wetter areas.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; monitor wetter areas/alder areas for need to spot plant cedar	KV	RD Silv.
Certification of natural regen. 4-6 years after harvest.		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 1730 of the SE Chichagof Timber SaleSTAND # 48VCU 230MANAGEMENT AREA C34ACRES 5 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-24Scale: 1:120001/4 Quad ID: SITD5SW**SITE CHARACTERISTICS:**Elevation: 550 to 1200 ft. Aspect: NW Slope: 35 to 65 %Landform: Smooth, frequently dissected mountain slopes.Slope Configuration: Convex Site Index (Farr): 84Plant Association: Western hemlock/blueberry and western hemlock/shield fern.Soil: SMU = 3247C, 3225DParent Material: Colluvium, ablation till over compact till and residuum.Soil Depth cm: 150 Soil Texture: Mucky and gravelly silt loam.Potential of Mass Failure: Low to moderate**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 08/01/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: LowDamaging Agents: No mistletoe sighted. Some pini conks, forks, sweeps, checks and cracks.Species Composition (trees 5+\" DBH): 100 %WH 0 %MH 0 %AC 0 %SSStand Structure: Uneven aged. Large diameter trees with scattered saps/poles.Less than adequate stocking in the understory. Site appears fairly productive.Brush species are not competitive.Ave. Height: 136 ft. Basal Area: 320 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 25 in. Ave. TPA (trees 5+\" DBH): 92Ground Cover: 30%-60% blueberry; <10% rusty menziesia and salmonberry;  
<5% shield fern.Total Net Sawlog Vol/Acre: 60.5 MBF Total Unit Vol: 367 MBFVolume by Species: H 60.5 MBF AC        MBF SS        MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Hydrology - Unit is in high mass wasting hazard soils zone, high potential for sediment delivery to C.I. channel. Objective is to reduce erosion and sed.del.Maintain designed buffer to C.I. & II streams. Log suspension required. BMPS 13.9, 13.11, 13.16, 12.6. Fisheries - no concerns, maintain designed buffers.Soils - Ensure that north and south boundaries are above v-notch slope breaks; Recommend partial suspension over entire unit due to stability problems.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource through protection of buffers and minimizing soil disturbance during yarding.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees or partial cut. Poor understory vigor and low stocking make partial cut undesirable. Clearcut with reserve trees will improve the chances of establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over the unit. Lack of spruce and cedar seed sources in surrounding area will result in predominantly a hemlock stand.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce, if present. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time

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**Transportation System:** Accessed by local road 76054. The drainage structures will be maintained after harvest.

**Logging System:** Designed for running skyline. Require directional felling away from Class II stream buffers and v-notch. Require partial suspension for unit.

**Unit Boundary:** Ensure that north and south boundaries are above v-notch slope breaks. Layout boundaries to minimize chance of blowdown, particularly along Class I and II buffers.

**Streamside Management:** Maintain designed buffers along Class I and II streams. Minimize soil disturbance to prevent sediment delivery to stream channels. Locate unit boundaries above slope breaks.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Unit is in high mass wasting hazard soils zone, high potential for sediment delivery to C.I. channel. Maintain designed buffers and require log suspension. Road culverts will be maintained to minimize sediment.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. Monitor development of salmonberry in unit, particularly if soil disturbance during yarding is high.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffers for effectiveness and windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92

UNIT # 1731 of the SE Chichagof Timber SaleSTAND # 47, 48VCU 230MANAGEMENT AREA C34ACRES 11 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-24

Scale: 1:12000

1/4 Quad ID: SITD5SW**SITE CHARACTERISTICS:**Elevation: 550 to 1200 ft. Aspect: NW Slope: 35 to 65 %Landform: Frequently dissected footslopes and mountainslopes.Slope Configuration: Convex Site Index (Farr): 75Plant Association: Western hemlock/blueberry and western hemlock/shield fern.Soil: SMU = 5261B, 3247CParent Material: Colluvium, ablation till and ablation till over compact tillSoil Depth cm: 150 Soil Texture: Mucky and gravelly silt loam.Potential of Mass Failure: Low to moderate**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 08/01/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: LowDamaging Agents: No mistletoe sighted. Some pini conks, forks, sweeps, checks and cracks.Species Composition (trees 5+\" DBH): 100 %WH        %MH        %AC        %SSStand Structure: Uneven Aged. Large dia. trees. Scattered saps and poles.

Less than adequate stocking in the understory. Understory of poor form.

Ave. Height: 136 ft. Basal Area: 320 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 25 in. Ave. TPA (trees 5+\" DBH): 92Ground Cover: 30%-60% blueberry; <10% rusty menziesia and salmonberry;  
<5% shield fern.Total Net Sawlog Vol/Acre: 66.4 MBF Total Unit Vol: 798 MBFVolume by Species: H 62.9 MBF AC        MBF SS 3.5 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Fisheries - no concern, maintain designed buffer. Hydrology - Unit is in  
high mass wasting hazard soils zone. Objective: reduce erosion and sediment  
delivery to C.I. stream. Maintain 100 ft. buffer to C.I. stream (BMP 13.16). Log  
suspension recommended (BMPS 13.5, 13.9, 13.11). Soils - Ensure north and south  
boundaries are above v-notch slope breaks; recommend partial suspension over  
entire unit because of stability problems.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource in adjacent stream and minimize soil displacement/erosion.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees or partial cut. Poor vigor and form and less than adequate stocking of understory make partial cut less desirable. Clearcut with reserve trees will allow for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to adequately stock the unit; spruce and cedar will likely be present in only minor amounts due to lack of seed sources in immediate vicinity.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce, if available. Clump/group snags along backline, sides of unit, or along TTRA buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by local road 76054. Drainage will be maintained after harvest.

**Logging System:** Designed for running skyline. Require directional felling away from Class I stream buffer and v-notches. Require partial suspension over entire unit.

**Unit Boundary:** Ensure north and south boundaries are above v-notch slope breaks. Layout TTRA buffer to minimize blowdown.

**Streamside Management:** Unit is in high mass wasting hazard area. High potential for sediment delivery to C.I. stream. Maintain 100 ft. buffer to C.I. stream (BMP 13.16). Log suspension recommended. BMPS 12.6, 13.9, 13.11 and 13.16.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** See remarks on streamside management above. Road drainage will be maintained (culverts, ditches, etc.) to prevent sediment transport.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed at this time. Monitor development of salmonberry, particularly if high disturbance occurs during yarding.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

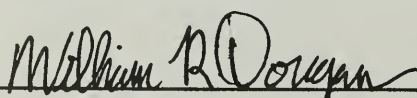
**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 1750 of the SE Chichagof Timber Sale

STAND #9, 35, 50

VCU 230

MANAGEMENT AREA C34

ACRES 36 Determined How: GIS By Whom: T. Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-23

Scale: 1:12000

1/4 Quad ID: SITD5SW

SITE CHARACTERISTICS:

Elevation: 500 to 1000 ft. Aspect: W to NE Slope: 20 to 50 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 84

Plant Association: Western Hemlock/blueberry and mixed conifer/blueberry.

Soil: SMU = 3247C, 3225D

Parent Material: Colluvium, Residuum and ablation till over compact till.

Soil Depth cm: 150 Soil Texture: Mucky and gravelly silt loam.

Potential of Mass Failure: Low to moderate

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 08/02/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Low to moderate defect, (pini and other rot). Moderate to high incidence of frost crack, broken tops, crook and forks. Light to moderate mistletoe. Light stem decay.

Species Composition (trees 5+\" DBH): 50-90 %WH 0-10 %MH 20-40 %AC 0-5 %SS

Stand Structure: Uneven aged. Many openings/gaps in stand. Fairly vigorous midstory in some areas. Saps/poles not well stocked in most areas.

Ave. Height: 80-100ft. Basal Area: 255 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): 14-18in. Ave. TPA (trees 5+\" DBH): 175-275

Ground Cover: 40%-70% blueberry; 5% rusty menziesia.

Total Net Sawlog Vol/Acre: 25.1 MBF Total Unit Vol: 1088 MBF

Volume by Species: H 17.0 MBF AC 5.1 MBF SS 3.0 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Fisheries - Check for secondary rearing channels during layout, adjust buffer to accommodate any unmapped channels. BMP 12.6.

Hydrology - Unit is in high mass wasting hazard area. High potential for sediment delivery to C.I. stream. Objective: reduce erosion and sed. delivery.

Maintain designed buffer, log suspension req'd split yard on any v-notches, BMPS 12.6, 13.9, 13.11. Soils - Split yard on v-notches between settings.

Recommend partial suspension in settings 2 and 3 because of numerous shallow notches. Maintain unit bndry at slope break of v-notch in north section of unit.

Visuals - locate & design rockpits to minimize visual impacts. Locate roads and landings to minimize visual impacts. Make limited adjustments to soften the backline edge.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in vigorous new stand which will yield sawlog and quality products. Provide for structural diversity through retention of snags and large woody material, as well as retaining midstory/understory in setting 1. Protect fisheries resource through TTRA buffer, minimizing soil disturbance.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. In setting 1, partial cut in the form of midstory and understory retention will be employed to provide structural diversity. For the remainder of the settings, clearcut with reserve trees will be employed due to low overstory/understory vigor and the presence of heavy brush which will preclude adequate regeneration. Clearcut with reserve trees will minimize adverse impacts of poor forest health and will provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** For setting 1: remove 24"+ DBH trees, retaining the vigorous midstory/understory. For remainder of unit, clearcut harvest followed by natural regeneration. Anticipate regeneration consisting primarily of hemlock, with smaller amounts of spruce and cedar. Small, localized gaps occupied by brush may regenerate more slowly and be at lower stocking levels.

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**Marking Guide:** Setting 1: ITM trees 24"+ DBH for removal. If additional trees are required to be removed for skyline roads, ITM those trees for removal. Do not employ a spacing guideline in marking trees. Objective is to retain as much of the existing vigorous midstory/understory as possible, minimizing blowdown potential by retaining the majority of the stand. Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce if available. Clump/group snags along backline, sides of unit or TTRA buffer to maximize retention. If inadequate snags exist, mark green trees to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time. Setting 1 should be evaluated for commercial thin opportunity during next entry into area.

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**Transportation System:** Accessed by Rd.#7605 which runs through west side of the unit.

**Logging System:** Designed for running skyline and slackline. Require directional fell & yard away from v-notches & Class I stream buffer. Require partial suspension in all of unit. Setting 1: designate corridors and require carriage with lateral yarding capability; require directional felling. ITM > 24".

**Unit Boundary:** Maintain unit boundary at slope break of v-notch in north section of unit. Make limited adjustments to soften the backline edge. Minimum 100 ft. buffer along stream.

**Streamside Management:** Check for secondary rearing channels during layout, adjust buffer to accommodate any unmapped channels. BMP 12.6.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** In setting 1, partial cut leaving 23" dbh and less. Also leave 2 snags per acre in entire unit. Refer to Marking Guide for instructions.

**Erosion Control:** Unit is in high mass wasting hazard area. High potential for sediment delivery to C.I, stream. Maintain designed buffers. Recommend log suspension. Maintain road (culverts, ditches).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** Evaluate setting 1 for opportunity to remove additional volume with future entry; consider windfirmness in any thinning prescription

**Final Harvest:** Evaluate for harvest in 95-100 years; setting 1 should be evaluated for harvest (either final or commercial thin) in next entry into area.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer effectiveness and windfirmness		Fish/Hydro
Evaluate setting 1 for commercial thin opportunity - next entry		Plan. Silv.
Evaluate setting 1 for final harvest - next entry		Plan. Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92

UNIT # 1770 of the SE Chichagof Timber Sale

STAND # 38

VCU 230

MANAGEMENT AREA C34

ACRES 40 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-23

Scale: 1:12000

1/4 Quad ID: SITD5SW

**SITE CHARACTERISTICS:**

Elevation: 400 to 900 ft. Aspect: NE to E Slope: 30 to 75+ %  
Landform: Smooth infrequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 67

Plant Association: Mixed Conifer/blueberry and mixed conifer/copperbush

Soil: SMU = 3551D, 3562D, 3249E

Parent Material: Colluvium/residuum

Soil Depth cm: 25-40 & 150 Soil Texture: Silt loam to gravelly loam.

Potential of Mass Failure: Moderate

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type II Date 08/02/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Light mistletoe; high defect in cedar, and showing decline in wetter areas. Some dead tops, checks and cracks. High number of minor forks and sweeps.

Species Composition (trees 5+" DBH): 15 %WH 26 %MH 58 %AC 1 %SS

Stand Structure: Uneven aged. Ranges from forested muskeg to fair volume. Dense cedar/hemlock saps, and scattered poles.

Ave. Height: 65 ft. Basal Area: 200 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 12 in. Ave. TPA (trees 5+" DBH): 270

Ground Cover: 70%-90% blueberry; <5% salmonberry, copperbush and devil's club.

Total Net Sawlog Vol/Acre: 12.1 MBF Total Unit Vol: 584 MBF

Volume by Species: H 4.2 MBF AC 6.2 MBF SS 1.7 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Hydrology and Fisheries have no concerns.

Soils - There may be cliffs at the upper end of settings 4-6; ensure that boundary is below them. Recommend partial suspension for this unit because of steep slopes in the upper part of the unit and wet soils in the lower part.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large woody material. Minimize soil disturbance to protect productivity.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to economic considerations of harvesting low volume as well as the need to provide for cedar and spruce regeneration. Clearcut with reserve trees will provide for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit, with spruce and cedar contributing to stocking in minor amounts. Localized areas of wetter soils and areas of high rock content will likely take longer to become stocked and may require spot planting of cedar to achieve adequate stocking.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by Rd.#7605 and a temporary spur road that runs north on the east side of the unit. The temporary spur will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline and slackline. Require directional felling and yarding away from v-notch in middle of unit; fell away from Class I stream buffer. Require partial suspension in entire unit. May need multiple or artificial guy anchors.

**Unit Boundary:** There may be cliffs at the upper end of settings 4-6; ensure that boundary is below them. Incorporate TTRA buffer into boundary layout.

**Streamside Management:** TTRA buffer on Class I stream adjacent to unit. Split-yard v-notch in middle of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Close, waterbar, and grass-seed temporary spur after use. Maintain Rd. 7605 (culverts, ditches) to minimize erosion/sedimentation.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Monitor regeneration in wetter areas and rocky areas and spot plant cedar if regeneration is inadequate.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; monitor wet areas/rocky areas for need for spot planting cedar	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 1780 of the SE Chichagof Timber Sale

STAND # 38

VCU 230

MANAGEMENT AREA C34

ACRES 22 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-24

Scale: 1:12000

1/4 Quad ID: SITD5SW

**SITE CHARACTERISTICS:**

Elevation: 700 to 1300 ft. Aspect: SE to E Slope: 50 to 100+%

Landform: Smooth, frequently dissected mountainslopes, and footslopes.

Slope Configuration: Convex Site Index (Farr): 66

Plant Association: Mountain hemlock/blueberry

Soil: SMU = 3249E, 5261B

Parent Material: Colluvium/residuum

Soil Depth cm: 25-40 & 150 Soil Texture: Gravelly loam and silt loam

Potential of Mass Failure: Low

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 08/01/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Some minor stem decay. No mistletoe. Some minor forks, sweeps and dead tops.

Species Composition (trees 5+ DBH): 12 %WH 52 %MH 28 %AC 8 %SS

Stand Structure: Uneven aged. 12"-22" dbh with larger scattered trees.

Saps/poles scattered throughout stand. Stocking is less than adequate.

Ave. Height: 68 ft. Basal Area: 330 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+ DBH): 14 in. Ave. TPA (trees 5+ DBH): 303

Ground Cover: 50%-70% blueberry; 20%-30% rusty menziesia.

Total Net Sawlog Vol/Acre: 12.1 MBF Total Unit Vol: 314 MBF

Volume by Species: H 4.2 MBF AC 6.2 MBF SS 1.7 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Hydrology - Unit is in high mass wasting soil hazard area. Objective: Reduce erosion and sediment delivery potential to C.I stream. Maintain designed buffer, log suspension req'd, split yard on any v-notches, BMPS 12.6,13.9,13.11,13.16.

Fisheries - no concerns, maintain designed buffer to C.I. stream.

Soils - Split yard v-notch between settings 1 & 2. Recommend partial suspension over entire unit because of numerous shallow notches and possible wetness problems along lower boundary.

Wildlife - High quality (HSI=1.0) brown bear habitat is located outside of the unit to the north. Avoid expansion into area

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries and soils resources through maintaining TTRA buffer and minimizing soil disturbance during yarding.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to economics of harvesting low volume, combined with the need to maintain a windfirm stand in any partial cutting scheme. Clearcut with reserve trees will minimize the occurrence of windthrow and will provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit, with minor amounts of spruce and hemlock contributing to stocking. Upper slopes may be slower to regenerate due to rocky soils.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit and along TTRA buffer to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Accessed by Rd.#7605 running south into the unit. The temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Require directional felling and yarding away from the v-notch between setting 1 and 2. Require directional felling away from Class I stream buffer. Require partial suspension over entire unit.

**Unit Boundary:** Incorporate TTRA buffer into boundary layout. Provide for wind-firm boundaries, particularly along buffer and north boundaries.

**Streamside Management:** Minimum 100 ft. buffer along Class I stream. Require partial suspension over unit to minimize soil disturbance/sedimentation.

**Wildlife Management:** High quality (HSI=1.0) brown bear habitat is located outside of the unit to the north; avoid expansion into the area.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking.

**Erosion Control:** Unit is in high mass wasting soil hazard area. Require partial suspension during yarding. Close, waterbar, and grass-seed spur road. Maintain Rd. 7605 culverts, ditches.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 2170 of the SE Chichagof Timber Sale

STAND # 217,290,297 VCU 231 MANAGEMENT AREA C34

ACRES 69 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 30 Photo #'s 1084-87

Scale: 1:12000

1/4 Quad ID: SITD5SE

SITE CHARACTERISTICS:

Elevation: 100 to 500 ft. Aspect: SE Slope: 45 to 60 %

Landform: Frequently to infrequently dissected footslopes and mountainslopes.

Slope Configuration: Valley bottom. Site Index (Farr): 60

Plant Association: Sitka spruce/blueberry-devil's club and western hemlock/blueberry.

Soil: SMU = 5243B, 3551D, 5143B.

Parent Material: Ablation till over compact till/colluvium/residuum.

Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam to gravelly loam.

Potential of Mass Failure: Low.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 07/19/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low

Damaging Agents: Some minor defects in dead tops, forks, sweeps, checks and cracks. Generally low defect and disease.

Species Composition (trees 5+" DBH): 62 %WH 0 %MH 0 %AC 38 %SS

Stand Structure: Uneven aged. Primarily 20-30" + DBH trees, with scattered mid-story trees. Saps and poles confined primarily to canopy gaps, with lower stocking under canopy. Understory generally of poor form and vigor.

Ave. Height: 100 ft. Basal Area: 260 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 22 in. Ave. TPA (trees 5+" DBH): 98

Ground Cover: 50%-60% blueberry; 10% Devil's club.

Total Net Sawlog Vol/Acre: 40.7 MBF Total Unit Vol: 3391 MBF

Volume by Species: H 29.3 MBF AC 2.9 MBF SS 8.5 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils, Fisheries and hydrology - No concerns.

Wildlife - High quality deer habitat (HSI=0.8), brown bear habitat (HSI=1.0) to the south of unit. Avoid expansion into this area.

Cultural - Unit falls within high probability zone. Survey is underway. Unit will be cleared before beginning harvest.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags, large woody material, and a portion of the midstory.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut is feasible in settings 5 and 6, where retaining trees for structural diversity and seed source will result in a more diverse regenerating stand. Clearcut with reserve trees will be employed in the remaining settings due to the lack of manageable midstory/understory. Clearcut with reserve trees provides for the establishment and growth of desirable trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:**Clearcut settings 1-4 followed by natural regeneration. Partial cut settings 5-6, retaining up to 16" DBH trees, followed by natural regeneration. Both hemlock and spruce are anticipated to stock the new stand. Spruce will be more successful in regenerating lower slopes; hemlock will be the major species anticipated to regenerate the upper slopes.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags in setting 1-4. Utilize live cull to the extent possible; in settings 5-6, green trees retained can serve as recruitment trees.

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In settings 5-6, mark merchantable trees >16" DBH for removal. Do not include spacing guidelines in marking (all trees up to 16" are to be retained). If individual trees need to be removed for skyline corridors, mark for removal.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by Rd.#75617 and temporary spur roads. Temporary spur roads will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Settings 5 & 6: Suggest ITM>16" dbh. Protect residual: Require full/partial suspension, Designate corridors, use rub trees, and require carriage with lateral yarding capabilities.

**Unit Boundary:** Layout unit boundary to incorporate needs for TTRA buffer along south boundary (adjacent to unit); provide for windfirmness.

**Streamside Management:** Class I stream is south of unit. Ensure unit layout accounts for need for TTRA buffer along stream.

**Wildlife Management:** High quality deer habitat (HSI=0.8) and brown bear habitat (HSI=1.0) located outside of the unit boundary to the south of the unit. Avoid expansion into these areas.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. In settings 5-6, retain up to 16" DBH trees for diversity and seed source.

**Erosion Control:** Require partial/full suspension. Maintain drainage (culverts and ditches) on Rd. 7561 & 75617. Close, waterbar, and grass-seed spurs.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor adjacent TTRA buffer for effectiveness/windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 2192 of the SE Chichagof Timber Sale

STAND #24,27,31

VCU 231

MANAGEMENT AREA C34

ACRES 25 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 28 Photo #'s 1184-147

Scale: 1:12000

1/4 Quad ID: SITD5SW

SITE CHARACTERISTICS:

Elevation: 300 to 800 ft. Aspect: SE to SW Slope: 5 to 50 %

Landform: Frequently dissected footslopes and alluvial fans.

Slope Configuration: Convex Site Index (Farr): 90

Plant Association: Sitka spruce/blueberry/devil's club, and w. hemlock/blueberry.

Soil: SMU = 5264B, 5247B

Parent Material: Alluvium. colluvium and ablation till.

Soil Depth:(cm) 150 Soil Texture: Silt loam to mucky silt loam.

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None Date / /

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents:

Species Composition (trees 5+" DBH): %WH %MH %AC %SS

Stand Structure: Uneven-aged hemlock/spruce stands. Appears to be a highly productive site.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 30% blueberry; 5-20 % sitka alder, salmonberry and devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has multiple small v-notches with erosion hazard; requires partial suspension to minimize soil disturbance above road location.

Fisheries and Hydrology - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource by maintaining Class I and II buffers adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. The lack of detailed stand information and the need to provide for spruce regeneration makes partial cut infeasible. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of unit; spruce will likely regenerate primarily on lower slopes. Localized areas of wetter soils dominated by devil's club may take longer to reach adequate stocking.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit or along buffers to maximize retention during yarding. If inadequate snags exist, mark green trees for retention as recruitment trees. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Unit accessed by temporary road off of Rd. 75617. Close, waterbar, and grass-seed after harvest.

**Logging System:** Designed for running skyline. Require directional felling and split yarding away from v-notches. Require partial suspension in settings 1, 2, and 3. Require directional felling away from Class I and II stream buffers.

**Unit Boundary:** Layout unit boundary to incorporate TTRA buffers.

**Streamside Management:** Maintain 100 ft. buffers along Class I and II streams. Layout buffers for windfirmness.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Unit has multiple small v-notches with erosion hazard; requires partial suspension. Close, waterbar, and grass-seed temp. road post-use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Anticipate need for PCT due to productivity of site.

**Commercial Thinning:** None prescribed nor anticipated.

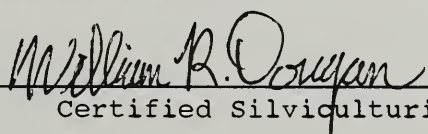
**Final Harvest:** Evaluate for harvest in 90-95 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
PCT Exam 14-16 years after harvest		RD Silv.
PCT - based on results of PCT exam		RD Silv.
Monitor TTRA buffers for effectiveness/windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: 

Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 2200 of the SE Chichagof Timber Sale

STAND # 30 VCU 231 MANAGEMENT AREA C34

ACRES 5 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 28 Photo #'s 1184-147

Scale: 1:12000

1/4 Quad ID: SITD5SW

SITE CHARACTERISTICS:

Elevation: 400 to 600 ft. Aspect: SE to SW Slope: 5 to 35 %

Landform: Frequently dissected foothills and alluvial fans.

Slope Configuration: Convex Site Index (Farr): 100

Plant Association: Sitka spruce/blueberry-devil's club.

Soil: SMU = 5264B

Parent Material: Alluvium

Soil Depth: (cm) 150 Soil Texture: Gray silt loam.

Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type None Date / /

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate

Damaging Agents:

Species Composition (trees 5+" DBH): %WH %MH %AC %SS

Stand Structure: Uneven-aged spruce stand.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 30% blueberry; 5%-20% devil's club, salmonberry and sitka alder.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - soil erosion hazard requires partial suspension.

Fisheries, Wildlife and Hydrology - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource through TTRA buffer along stream.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and the need to provide for spruce regeneration make partial cut infeasible. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. It is anticipated that spruce will regenerate naturally over unit; disturbance during yarding will be required to expose mineral seedbed. If excessive disturbance occurs, site will likely be invaded by salmonberry/alder, requiring planting to successfully stock the site.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit, and TTRA buffer to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time. If economically feasible, possibility for commercial thinning may exist due to high site productivity.

**Transportation System:** Accessed by temporary road. Close, waterbar and grass seed after use.

**Logging System:** Designed for running skyline. Require partial suspension. Require directional felling away from Class I and II stream buffers.

**Unit Boundary:** Incorporate TTRA buffers for Class I and II streams into unit boundary layout. Minimum 100 ft. buffers prescribed along streams.  
**Streamside Management:** Buffer required on Class I and II streams.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Require partial suspension during yarding to minimize soil erosion in unit. Close, waterbar and grass seed temporary road.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Monitor development of salmonberry/alder in unit. Consider planting spruce if brush becomes established prior to natural regen.  
**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor development of salmonberry/alder for vegetation management needs. Not anticipated to be a need.

**Precommercial Thinning:** Evaluate for PCT 12-14 years after harvest. Base need for thinning on results of PCT exam.

**Commercial Thinning:** Possibility exists for commercial thinning; evaluate with stand exam 55-60 years after harvest.

**Final Harvest:** Evaluate for final harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Evaluate need for PCT - do PCT exam 12-14 years after harvest		RD Silv.
PCT - based on results of PCT exam, 14-16 years after harvest		RD Silv.
Monitor effectiveness of TTRA buffers		Fish/Hydro
Evaluate need for commercial thin - stand exam 55-60 yrs.		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 2210 of the SE Chichagof Timber Sale

STAND # 53

VCU 231

MANAGEMENT AREA C34

ACRES 25 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 28 Photo #'s 1184-146

Scale: 1:12000

1/4 Quad ID: SITD5SW

SITE CHARACTERISTICS:

Elevation: 360 to 1000 ft. Aspect: SE Slope: 45 to 75 %

Landform: Smooth, infrequently dissected mountain slopes.

Slope Configuration: Convex Site Index (Farr): 99

Plant Association: Mixed conifer/blueberry.

Soil: SMU = 3521D

Parent Material: Colluvium/residuum

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam.

Potential of Mass Failure: Low.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 07/18/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low.

Damaging Agents: Cedar showing decline. Weather damage evident. Possible light mistletoe infection in hemlock.

Species Composition (trees 5+" DBH): 50 %WH        %MH 50 %AC        %SS

Stand Structure: Uneven aged. Poles/saps/seedlings in openings. Generally well stocked, with very little brush competition.

Ave. Height: 64 ft. Basal Area: 160 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" DBH): 118

Ground Cover: 80%-90% Blueberry; <5% salmonberry.

Total Net Sawlog Vol/Acre: 12.9 MBF Total Unit Vol: 391 MBF

Volume by Species: H 3.6 MBF AC 9.3 MBF SS        MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Fisheries, Hydrology, Soils, and Wildlife - No concerns.

MANAGEMENT DIRECTION:

**Forest Plan:** VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term sale. Regenerate stand resulting in a more vigorous new stand which will yield sawlog and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Provide for species diversity through including cedar component in new stand.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to poor health and vigor of overstory. However, there is a desire to retain advanced regeneration wherever possible, particularly cedar. Clearcut with reserve trees will minimize the potentially adverse impacts of declining overstory health in the stand, as well as provide for establishment and growth of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

**Regeneration Treatments:** Clearcut harvest followed by artificial regeneration and natural regeneration. Hemlock is expected to regenerate naturally over most of the unit; localized wetter areas will be more difficult to regenerate naturally. To ensure cedar remains a component in the stand, plant cedar across entire unit.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** Possibility exists for commercial thinning due to high productivity of site.



INTEGRATED SILVICULTURE PRESCRIPTION

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**Transportation System:** Accessed by temporary spur road that will be closed, waterbarred and grass-seeded after harvest.

**Logging System:** Designed for running skyline. To the extent possible, strive to retain advanced regeneration (particularly cedar) for diversity in the new stand.

**Unit Boundary:** Layout boundary for windfirmness.

**Streamside Management:** No concerns. TTRA buffer lies to the south of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Close, waterbar, and grass-seed temporary roads after harvest.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar following harvest. Plant at wide spacing (20 x 20 ft.) and ensure wetter areas are planted.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 15-17 years after harvest. If thinning is indicated, favor cedar as crop trees to be retained.

**Commercial Thinning:** Evaluate for commercial thinning 60-65 years after harvest using stand exam.

**Final Harvest:** Evaluate for harvest 100-110 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant cedar 20 x 20 ft. spacing after harvest.	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural regen. during 3 year exam	KV	RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer adjacent to unit for effectiveness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 2290 of the SE Chichagof Timber Sale

STAND #183,187 VCU 231 MANAGEMENT AREA C34

ACRES 25 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 28 Photo #'s 1184-146

Scale: 1:12000

1/4 Quad ID: SITD5SW

SITE CHARACTERISTICS:

Elevation: 400 to 800 ft. Aspect: NW Slope: 25 to 75 %

Landform: Broken mountainslopes to smooth, frequently dissected mountainslopes.

Slope Configuration: Lower valley bottom slopes Site Index (Farr): 58

Plant Association: Mixed conifer/blueberry.

Soil: SMU = 3663C, 3247C, 3690B

Parent Material: Colluvium, ablation till over compact till and organic material.

Soil Depth: (cm) 150 Soil Texture: Silt loam to mucky silt loam and peat.

Potential of Mass Failure: Moderate.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 07/18/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low

Damaging Agents: Some weather damage (forks, sweeps, broken tops) evident. No mistletoe noted.

Species Composition (trees 5+" DBH): 22 %WH 70 %MH 3 %AC 5 %SS

Stand Structure: Uneven aged mixed species stand. Saps/poles/seedlings confined mainly to canopy gaps. Understory of poor form and vigor. Localized areas of wetter soils noted.

Ave. Height: 90-120ft. Basal Area: 200 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 16-26in. Ave. TPA (trees 5+" DBH): 60-200

Ground Cover: 70%-80% Blueberry; 5% salmonberry.

Total Net Sawlog Vol/Acre: 30.1 MBF Total Unit Vol: 915 MBF

Volume by Species: H 28.6 MBF AC 0.5 MBF SS 1.0 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Recommend full suspension over v-notches and over wet areas along bottom part of unit.

Fisheries, Hydrology and Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soils/v-notches during yarding operations.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to unmanageable understory and general low vigor of overstory. Clearcut with reserve trees will minimize the occurrence of adverse impacts affecting forest health and provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit, with cedar and spruce being minor components of new stand. Monitor cedar regeneration to ensure it is a component in new stand; consider interplanting cedar if natural regeneration of cedar is inadequate.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by temporary road. Close, waterbar and grass seed after use.

**Logging System:** Designed for running skyline. Require directional felling away from v-notches and split yard. May need artificial guy anchors due to landing's adjacency to muskeg.

**Unit Boundary:** Layout windfirm boundaries.

**Streamside Management:** Protect v-notches in unit through directional felling and split-yarding.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Close, waterbar and grass seed temporary road. Protect v-notches during yarding.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed at this time. Monitor effectiveness of cedar regen. and consider planting cedar if regeneration is inadequate.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated. Monitor development of salmonberry on lower slopes, particularly if heavily disturbed during yarding.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92



UNIT # 2300 of the SE Chichagof Timber Sale

STAND #183,204,384

VCU 231

MANAGEMENT AREA C34

ACRES 28 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-29

Scale: 1:12000

1/4 Quad ID: SITD5SW

**SITE CHARACTERISTICS:**

Elevation: 200 to 1000 ft. Aspect: NW to N Slope: 40 to 75 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex/valley bottom. Site Index (Farr): 78

Plant Association: Mixed conifer/blueberry

Soil: SMU = 3247C

Parent Material: Colluvium and ablation till over compact till.

Soil Depth: (cm) 150 Soil Texture: Mucky silt loam.

Potential of Mass Failure: Low to moderate

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 07/20/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low

Damaging Agents: Weather damage evident (forks, sweeps). Rots present in larger more decadent trees. Mistletoe present, but scattered.

Species Composition (trees 5+\" DBH): 80 %WH 15 %MH 5 %AC 5 %SS

Stand Structure: Uneven aged. Larger trees with scattered smaller diameters.

Low stocking of saps/poles due to heavy brush layer; canopy gaps are beginning to become stocked with understory trees.

Ave. Height: 95-115ft. Basal Area: 220 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): 14-18in. Ave. TPA (trees 5+\" DBH): 150-200

Ground Cover: 80%-90% blueberry; 10%-20% rusty menziesia and salmonberry.

Total Net Sawlog Vol/Acre: 33.0 MBF Total Unit Vol: 1123 MBF

Volume by Species: H 30.4 MBF AC 0 MBF SS 2.6 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Fisheries - No concerns. Hydrology - Unit is in high mass wasting hazard soils zone and a C.III stream is within unit. Objective: Reduce erosion and sediment delivery to C.II and C.III streams. Split yard on C.III stream, log suspension req'd; BMPS 13.9, 13.11 and 13.16.

Soils - Recommend full suspension over v-notches that can't be split yarded.

Ensure east boundary is above slope break of v-notch. Partial suspension over remainder of unit.

MANAGEMENT DIRECTION:

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soils and Class 2 and 3 streams within and adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut is not feasible due to heavy brush over most of unit which precludes adequate regeneration, as well as the general decadence of the overstory, which precludes retention of vigorous trees. Clearcut with reserve trees will minimize potentially adverse impacts to forest health as well as provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of unit; spruce will regenerate on lower slopes if adequate disturbance occurs. Presence of salmonberry will require monitoring to determine need for planting if heavy disturbance occurs during yarding.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit and TTRA buffer to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

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Transportation System: Accessed by Rd.#75615.

Logging System: Designed for running skyline and slackline. Require partial suspension for entire unit due to high hazard soils; full suspension over small streams. Directionally fell away from v-notches.

Unit Boundary: Incorporate TTRA buffer layout into unit boundary. Layout boundary for windfirmness. Locate east boundary above slope break of v-notch.

Streamside Management: Protect Class 3 stream in unit and Class 2 and 3 streams adjacent to unit.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

Erosion Control: Require partial suspension over unit and full suspension over streams to minimize erosion potential. Maintain drainage on Rd. 75615.

Fuel Treatment: None prescribed.

Planting: None prescribed at this time. Monitor development of salmonberry following yarding disturbance to determine need for interplanting spruce.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed at this time. Development of salmonberry may require treatment to ensure satisfactory growth/survival of regen.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 3-4 years after harvest; evaluate development of salmonberry and need for planting	KV	RD Silv.
Certification of natural regen. 4-5 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer and streams within unit		Fish/Hydro
Check road drainage structures annually		RD Roads

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92

UNIT # 2341 of the SE Chichagof Timber Sale

STAND #218,223,226 VCU 231 MANAGEMENT AREA C34

ACRES 34 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 30 Photo #'s 1084-88

Scale: 1:12000

1/4 Quad ID: SITD5SE

**SITE CHARACTERISTICS:**

Elevation: 100 to 600 ft. Aspect: NW to W Slope: 30 to 75 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Valley bottom/convex Site Index (Farr): 76

Plant Association: Mixed conifer/blueberry

Soil: SMU = 3151D, 3125D, 6174B

Parent Material: Colluvium and residuum.

Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam to gravelly loam.

Potential of Mass Failure: Low to moderate.

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 07/23/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate

Damaging Agents: Low defect. Some weather damage. Scattered blowdown in areas.  
Little to no mistletoe.

Species Composition (trees 5+" DBH): 40-70 %WH 15-30 %MH 10-40 %AC 0 %SS

Stand Structure: Uneven aged. Hemlock with scattered spruce/cedar. Saps/poles are confined mainly to gaps; better stocking on lower slopes. Seedlings found primarily on nurse logs. Brush inhibiting regen. in places.

Ave. Height: 85-95 ft. Basal Area: 260 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" DBH): 190-220

Ground Cover: 60%-80% blueberry; <10% salmonberry and rusty menziesia;  
<5% sitka alder.

Total Net Sawlog Vol/Acre: 30.8 MBF Total Unit Vol: 1252 MBF

Volume by Species: H 29.4 MBF AC 1.4 MBF SS 0 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Fisheries - no concerns. Hydrology - Unit is in a high mass wasting soil hazard area. Employ erosion prevention measures. BMP 13.11

Soils - Recommend full suspension on slopes >75% along backline, and partial suspension over rest of unit.

Cultural - Unit falls within the high probability zone. Survey is underway. The unit will be cleared before the beginning of harvest activities.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect the soil resource.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to low vigor of the overstory and concerns with blowdown following partial cutting. Clearcut with reserve trees will minimize the adverse impacts of windthrow and poor vigor on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to naturally regenerate most of unit; spruce and cedar will be minor stand components. Areas of thinner soils/rocky areas will be more difficult to regenerate.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by Rd.#75616.

**Logging System:** Designed for running skyline and slackline. Require partial suspension due to high hazard soils.

**Unit Boundary:** Provide windfirm boundary.

**Streamside Management:** Numerous small v-notches in unit. No major streams in or adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Unit is in a high mass wasting soil hazard area. Employ erosion prevention measures. BMP 13.11. Require partial suspension. Maintain drainage on Rd. 75616 (culverts, ditches).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Monitor stocking in brushier areas.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor development of salmonberry/alder on lower slopes following yarding. No treatment anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 2350 of the SE Chichagof Timber SaleSTAND #218,225,228VCU 231MANAGEMENT AREA C34ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 30 Photo #'s 1084-88Scale: 1:120001/4 Quad ID: SITD5SE**SITE CHARACTERISTICS:**Elevation: 150 to 500 ft. Aspect: W to NW Slope: 25 to 60 %Landform: Gently sloping lowlands & smooth, infrequently dissected mtnslopes.Slope Configuration: Convex/valley bottom Site Index (Farr): 47Plant Association: Mixed conifer/blueberry and mixed conifer/skunk cabbage.Soil: SMU = 6174B, 3551B, 3125DParent Material: Organic, colluvium and residuum.Soil Depth: (cm) 25-40&150 Soil Texture: Peat and gravelly silt loam.Potential of Mass Failure: Moderate to low.**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 07/21/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: Low.Damaging Agents: Stand 218 - moderate to high defect, (rots, weather damage, and dead tops). Scattered light mistletoe. Stand 223 - less defect/damage. Cedar shows signs of decline.Species Composition (trees 5+\" DBH): 70 %WH 25 %MH 5 %AC 0 %SSStand Structure: Uneven aged. Hemlock fairly decadent over most of stand. Stand 223 somewhat younger than surrounding area, more vigorous. Saps/poles confined to gaps; seedlings precluded due to brush.Ave. Height: 95-100ft. Basal Area: 250 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 15 in. Ave. TPA (trees 5+\" DBH): 200-230Ground Cover: 70%-80% blueberry; 10% rusty menziesia and devil's club; <5% salmonberry.Total Net Sawlog Vol/Acre: 29.1 MBF Total Unit Vol: 1383 MBFVolume by Species: H 27.8 MBF AC 1.3 MBF SS 0 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Fisheries and Hydrology - No concerns. Soils - split yard on v-notches.

Recommend partial suspension on slopes &gt;60% to minimize soil disturbance.

Wildlife - No concerns.Cultural - Unit falls within high probability zone. Survey is underway. Unit will be cleared before harvest begins.

MANAGEMENT DIRECTION:

**Forest Plan:** VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Provide for soil protection, particularly on steeper slopes and along v-notches.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Stand 223 is feasible to partial cut, but less than 1 acre of unit is within this stand. Remainder of unit is in a decadent condition and is not feasible to partial cut. Clearcut with reserve trees will minimize adverse impacts affecting forest health as well as provide for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; small localized wet areas will likely take longer to regenerate. Cedar is anticipated to be a minor stand component due to limited natural regeneration.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by Rd.#7561 and Rd.#75616; road intersection in unit.

**Logging System:** Designed for running skyline and slackline. Require partial suspension for settings 2 and 4 due to high hazard soils. Require directional felling and split yard away from v-notch between settings 4 and 5.

**Unit Boundary:** Layout windfirm boundary.

**Streamside Management:** Provide protection to v-notch between settings 4 and 5. No other streams in or immediately adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension in settings 2 and 4. Yard away from v-notch in unit. Maintain drainage (culverts, ditches) on Rds. 7561 and 75616.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Lower portion of stand can be expected to have salmon-berry competition following disturbance. Monitor for need to treat.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for final harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92

UNIT # 2390 of the SE Chichagof Timber SaleSTAND #33,46,49VCU 231MANAGEMENT AREA C34ACRES 60 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-28Scale: 1:120001/4 Quad ID: SITD5SW**SITE CHARACTERISTICS:**Elevation: 160 to 800 ft. Aspect: S to SE Slope: 35 to 100 %Landform: Smooth, infrequently dissected mtslopes and dissected footslopes.Slope Configuration: Convex/valley bottom Site Index (Farr): 82Plant Association: western hemlock/blueberry and western hemlock/devil's club/  
shallow soils.Soil: SMU = 3551D, 5234BParent Material: Colluvium and residuum.Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam to gravelly loam.Potential of Mass Failure: Low to moderate.**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 07/18/91Stand History: Wind/slides appear to be major stand development influences.Potential Windthrow Hazard: Low to moderate.Damaging Agents: No mistletoe, little defect and disease. Fairly healthy stand.

Saps/poles and seedlings in canopy gaps.

Species Composition (trees 5+" DBH): 100 %WH  %MH  %AC  %SSStand Structure: Uneven aged. Dense stand with large trees over most of unit.Saps/poles/seedlings confined mainly to canopy gaps. Shallow soils and surface  
rock over upper portions of unit.Ave. Height: 100-130ft. Basal Area: 290 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): 14-18in. Ave. TPA (trees 5+" DBH): 220-280Ground Cover: 15%-20% blueberry in one portion unit and 80%-90% in remainder.<5% rusty menziesia; 5%-10% devil's club.Total Net Sawlog Vol/Acre: 67.9 MBF Total Unit Vol: 4965 MBFVolume by Species: H 67.9 MBF AC 0 MBF SS 0 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Fisheries - Check for unmapped rearing/spawning channels during layout. Protect  
any unmapped channels. BMP 12.6 Hydrology - Highly active C.I. streamsystem, may be secondary channels. BMP 12.6, 13.16 Wildlife - High quality  
deer habitat (HSI=0.8) is outside of unit to the west. High quality brown bear  
habitat (HSI=1.0) occurs S and W. Avoid expansion into these areas.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect thin soils on upper slopes. Protect fisheries in Class 1 stream adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Shallow soils and large diameter trees with associated large crowns make blowdown likely if partial cutting applied. Clearcut with reserve trees will minimize the occurrence of potentially adverse impacts from blowdown (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit; spruce will likely regenerate on lower slopes/alluvial areas. Areas of heavy surface rock and portions of alluvial area will likely be difficult to regenerate.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit or along TTRA buffer. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by Rd.#75617 and temporary spur roads. Temporary spur roads will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline, shovel, and downhill highlead. Require directional felling and split yarding away from v-notches. Directionally fell away from Class I stream buffer.

**Unit Boundary:** Check for unmapped rearing/spawning channels during layout. Adjust boundary to protect any unmapped channels.

**Streamside Management:** Minimum 100 ft. buffer on Class I stream. Include all rearing/spawning habitat in buffer layout.

**Wildlife Management:** High quality deer habitat (HSI=0.8) is outside of unit to the west. High quality brown bear habitat (HSI=1.0) occurs S and W of unit. Avoid expansion into these areas.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** To the extent possible, minimize soil disturbance on upper slopes. Maintain Rd. 75617 (culverts, ditches). Close, waterbar, and grass-seed temporary roads after use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Possibility for planting to be needed in shovel settings if heavily disturbed due to presence of salmonberry/alder.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor lower slopes (area shovel yarded) for development of salmonberry and alder.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 2440 of the SE Chichagof Timber Sale

STAND #13,48,50,52,207 VCU 232

MANAGEMENT AREA C34

ACRES 80 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-31

Scale: 1:12000

1/4 Quad ID: SITC5NE

**SITE CHARACTERISTICS:**

Elevation: 100 to 800 ft. Aspect: SE to S Slope: 10 to 70+ %

Landform: Broken mountainslopes and frequently dissected footslopes.

Slope Configuration: Valley bottom/convex Site Index (Farr): 80

Plant Association: Western hemlock/blueberry and western hemlock/blueberry/skunk cabbage.

Soil: SMU = 3645C, 5256B

Parent Material: Colluvium/ablation till

Soil Depth:(cm) 150 Soil Texture: Loam to gravelly silt loam.

Potential of Mass Failure: Low

**STAND CHARACTERISTICS:**

Stand Examination: Type None Date / /

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate

Damaging Agents: Low defect and decay in most areas. In some areas, pini, pinicola and cedar butt rott are common.

Species Composition (trees 5+" DBH): 35-55 %WH 15-40 %MH 30-60 %AC 5-10 %SS

Stand Structure: Uneven aged. Primarily hemlock with spruce. High percent cedar throughout unit. Some old blowdown. Large DBH trees in most of unit. One area has smaller DBH trees with lots of poles.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 25 in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-70% blueberry. <10% devil's club and rusty menziesia. <5% Sitka alder, salmonberry, stink current and copperbush.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 2511 MBF

Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Ensure adequate stream buffers and recommend partial suspension over wet areas in settings 8 and 9. Recommend split yarding on v-notch in setting 6.

Fisheries - Small rearing channels may lie in east part of unit; check during layout. BMP 12.6.

Hydrology - Several C.III streams within unit. Protect stream channels, reduce erosion. Split yard v-notches. BMPS 13.9, 13.11, 13.16.

Cultural - Unit within high probability zone. Survey is underway. Unit will be cleared before harvest begins.

MANAGEMENT DIRECTION:

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect streams within and adjacent to unit.

Alternatives Considered: Regeneration harvest considered are clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to likelihood of blowdown associated with opening up stand as well as the need to encourage regeneration of spruce on lower slopes. Clearcut with reserve trees will minimize adverse impacts of windthrow as well as encourage establishment and growth of desirable trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will be a major component on lower slopes adjacent to streams. Localized wetter areas will likely take longer to reach adequate stocking.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit and along TTRA buffers to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Accessed on the east side by Rd.#7561, on the south by Rd.#75612 and temporary spurs off of Rd.#75612. Temporary spur roads will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline and slackline. Require directional felling and yarding away from v-notches. Require partial suspension in settings 8 and 9. Require directional felling away from Class II stream buffer.

**Unit Boundary:** Incorporate TTRA buffers into unit boundary. Provide for windfirmness.

**Streamside Management:** Ensure adequate stream buffers. Class 3 streams located within unit, as well as several v-notches. Split yard v-notches.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension in settings 8/9. Protect v-notches and buffers. Maintain drainage (culverts, ditches) on Rds. 7561, 75612. Close, waterbar, and grass-seed temporary roads.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Monitor regen. on lower slopes carefully due to possibility of salmonberry/alder developement if heavily disturbed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor development of salmonberry and alder on alluvial areas and lower slopes.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffers for effectiveness and windfirmness		Fish/Hyrdo.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92

UNIT # 2450 of the SE Chichagof Timber SaleSTAND #59, 69VCU 232MANAGEMENT AREA C34ACRES 33 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-32Scale: 1:120001/4 Quad ID: SITC5NW**SITE CHARACTERISTICS:**Elevation: 350 to 800 ft. Aspect: NE to SE Slope: 15 to 70 %Landform: Smooth, frequently dissected footslopes and mountainslopes.Slope Configuration: convex/valley bottom Site Index (Farr): 88Plant Association: Mixed conifer/blueberrySoil: SMU = 3257D, 5220B.Parent Material: Colluvium/residuum.Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam.Potential of Mass Failure: Low to moderate.**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 07/05/91Stand History: Wind/small slumps appear to be the major stand development processPotential Windthrow Hazard: Low.Damaging Agents: Weather-related damage common. Rots scattered throughout unit.

No evidence of mistletoe.

Species Composition (trees 5+\" DBH): 74 %WH 8 %MH 18 %AC 0 %SSStand Structure: Uneven aged. Mid to upper slopes, trees are short for DBH. In some areas there are a lot of canopy gaps. Moderate to low stocking of saps, poles and seedlings due to brush.Ave. Height: 87 ft. Basal Area: 380 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 15 in. Ave. TPA (trees 5+\" DBH): 335Ground Cover: 60%-80% blueberry; <10% Rusty menziesia and devil's club.<5% salmonberry.Total Net Sawlog Vol/Acre: 41.8 MBF Total Unit Vol: 1673 MBFVolume by Species: H 21.4 MBF AC 20.4 MBF SS 0 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Recommend full suspension over v-notches that can't be split yarded.

Partial suspension on steep slopes along backline and over rest of unit to protect wet soils along bottom of unit.

Hydrology - Maintain unit boundary to slope break of v-notch (C.III) channel in SW part of unit. BMP 13.16.

Fisheries, Wildlife: No concerns.



MANAGEMENT DIRECTION:

**Forest Plan:** VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource in Class 1 stream adjacent to unit. Protect soil resource.

**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. General poor health of overstory and the presence of heavy brush which precludes regeneration makes partial cut infeasible. Clearcut with reserve trees will minimize potential adverse impacts of poor forest health and will provide for establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

**Regeneration Treatments:** Clearcut followed by artificial regeneration. Hemlock will naturally regenerate over most of unit. Plant cedar and spruce to ensure species diversity. Localized wet areas on alluvial sites are anticipated to be more difficult to regenerate.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit and along buffers to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by Rd.#75612 and temporary spur roads off of Rd.#75612. Temporary spur roads will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for slackline and shovel. Require directional felling and split yarding away from v-notches. Require directional felling away from Class II stream buffers. Require partial suspension for entire unit due to high hazard soils.

**Unit Boundary:** Incorporate buffer designs into unit boundary. Layout windfirm boundary.

**Streamside Management:** Minimum 100 ft. TTRA buffers along streams. Maintain unit boundary to slope break of v-notch channel in SW part of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension required to protect soils. Maintain Rd. 75612 (culverts, ditches). Close, waterbar, and grass-seed spur roads post-use.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with spruce and cedar. Plant spruce in shovel area (setting 3); plant cedar in remainder of unit. Plant spruce 12 x 12; plant cedar 20 x 20 ft.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor development of alder and salmonberry in shovel area if heavy disturbance occurs.

**Precommercial Thinning:** Evaluate for PCT 12-14 years after harvest. Base need for PCT on results of exam.

**Commercial Thinning:** Possibility for commercial thinning due to high site productivity. Stand exam 55-60 years following harvest to evaluate.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant unit with spruce/cedar following harvest	KV	RD Silv.
Installation of survival transects during planting operation	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural regen. during 3 year exam	KV	RD Silv.
Check for blowdown annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Road maintenance (culverts, ditches, etc.)		RD Roads
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 2451 of the SE Chichagof Timber SaleSTAND # 70VCU 232MANAGEMENT AREA C34ACRES 19 Determined How: GIS By Whom: T. Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-32Scale: 1:120001/4 Quad ID: SITC5NW**SITE CHARACTERISTICS:**Elevation: 350 to 1160 ft. Aspect: NE to SE Slope: 15 to 70 %Landform: Smooth, frequently and infrequently dissected mountainslopes.Slope Configuration: Convex/valley bottom. Site Index (Farr): 74Plant Association: Mixed conifer/blueberrySoil: SMU = 3257D, 3594CParent Material: Colluvium/residuum/organic.Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam to mucky peat.Potential of Mass Failure: Low to moderate.**STAND CHARACTERISTICS:**Stand Examination: R6 Quick Plot Type 11 Date 07/05/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: LowDamaging Agents: Moderate amount of broken/dead tops. Rots (pini and chicken of the woods) prevalent. Mistletoe was not observedSpecies Composition (trees 5+\" DBH): 74 %WH 8 %MH 18 %AC 0 %SSStand Structure: Uneven aged. Mid to upper slopes the trees are short for DBH.Scattered hemlock/cedar saps, with low stocking. Seedlings sparse, primarily due to heavy brush.Ave. Height: 87 ft. Basal Area: 380 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 15 in. Ave. TPA (trees 5+\" DBH): 335Ground Cover: 60%-80% blueberry; <10% rusty menziesia and devil's club.<5% salmonberry.Total Net Sawlog Vol/Acre: 36.8 MBF Total Unit Vol: 843 MBFVolume by Species: H 12.8 MBF AC 24.0 MBF SS 0 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils - Ensure that boundary is above slope breaks of large v-notches; Recommend at least partial suspension due to unstable and steep slopes - prefer full suspension.Fisheries, Hydrology, Wildlife: No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource on steeper, unstable slopes. Protect v-notches and Class 3 stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory makes partial cut infeasible. Clearcut with reserve trees will minimize the occurrence of potentially adverse impacts of disease infestations affecting forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut followed by artificial and natural regeneration. Hemlock is anticipated to regenerate naturally over most of unit; some of the more wet sites on steeper slopes will likely be more difficult to regenerate. Plant cedar at wide spacing to ensure species diversity.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Accessed by a temporary spur road off Rd.#75612. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for slackline. Require directional felling and split yarding away from v-notches. Require, at a minimum, partial suspension over entire unit due to high hazard soils.

**Unit Boundary:** Ensure that boundary is above slope breaks of large v-notches.

**Streamside Management:** Class 3 stream adjacent to unit on north boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension over unit to minimize soil disturbance. Close, waterbar, and grass-seed spur roads. Split-yard v-notches.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar following harvest. Plant at 20 x 20 ft. spacing.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor salmonberry development on lower slopes, particularly if heavily disturbed during yarding.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 100-105 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant unit with cedar, 20 x 20 spacing, following harvest	KV	RD Silv.
Installation of survival transect during planting operation	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural regen. during 3 year exam	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92

UNIT # 2470 of the SE Chichagof Timber SaleSTAND # 91,96,97VCU 232MANAGEMENT AREA C34ACRES 33 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-32Scale: 1:120001/4 Quad ID: SITC5NW**SITE CHARACTERISTICS:**Elevation: 350 to 900 ft. Aspect: W to NW Slope: 20 to 80 %Landform: Broken mountainslopes and gently sloping lowlands.Slope Configuration: Valley bottom/convex. Site Index (Farr): 78Plant Association: Mixed Conifer/skunk cabbage/lady fern and mixed conifer/blueberry.Soil: SMU = 3625D, 6174BParent Material: Colluvium/residuum/organic.Soil Depth: (cm) 150 Soil Texture: Peat to gravelly silt loam.Potential of Mass Failure: Low**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 07/05/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: LowDamaging Agents: Fairly healthy stand. In some areas dead/dying tops, forking, and some pini conks.Species Composition (trees 5+\" DBH): 40 %WH 52 %MH 0 %AC 8 %SSStand Structure: Uneven aged. Fairly open mixed conifer stand. Scattered larger DBH trees, with majority 16\"-26\" range. Saps/poles scattered through understory, some areas with poor understory vigor and form.Ave. Height: 87 ft. Basal Area: 240 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 14 in. Ave. TPA (trees 5+\" DBH): 233Ground Cover: 50% blueberry; <10% devil's club, salmonberry and skunk cabbage.Total Net Sawlog Vol/Acre: 31.8 MBF Total Unit Vol: 1043 MBFVolume by Species: H 27.2 MBF AC 0 MBF SS 4.6 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils - Recommend partial suspension on steep slopes and full suspension on slopes >75%. Split yard on v-notches where possible - otherwise full suspension across them. Fisheries - no concerns. Hydrology - no concerns.Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand. Provide for structural diversity through retention of snags, large down woody material and groups of residual trees. Minimize soil disturbance over unit.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut retaining groups of trees between skyline roads is feasible in setting 1. Remainder of unit has stand structure and health as well as logging system configuration which is not amenable to retaining groups of trees. Clearcut with reserve trees will be employed in this area to minimize potentially adverse impacts of logging damage on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Setting 1: ITM small groups of trees between skyline roads. Clearcut remainder. Settings 2-4: Clearcut followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; cedar and spruce will regenerate in smaller quantities, but are anticipated to be a component of the regeneration.

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**Marking Guide:** Setting 1 (9 acres): ITM small groups (approx. 0.5 acre in size) such that about 6 groups are marked. Orient groups between skyline roads, shaped such that they resemble the "fan" shape between roads. Objective is to provide islands of diversity and structure in this setting. For remainder of unit, designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Access to this unit requires crossing a Class II stream on road 756121 prior to the temporary spur road that accesses this unit. The temporary spur road will be closed, waterbarred, and grass-seeded after harvest. Class II stream crossing will not impede fish passage.

**Logging System:** Designed for running skyline and highlead. Require partial suspension over entire unit, at a minimum. Delineate groups of trees to retain in setting 1, take measures to protect (designate corridors, require lateral capability, directional felling).

**Unit Boundary:** Incorporate reserve groups into boundary layout. Provide wind-firm boundaries.

**Streamside Management:** No concerns with fisheries or hydrology.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** In setting 1, leave groups of trees within setting. In addition, leave 2 snags per acre for wildlife/diversity. Refer to Marking Guide.

**Erosion Control:** Close, waterbar, and grass-seed temporary spur.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor windfirmness of groups left in setting 1	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 2480 of the SE Chichagof Timber Sale

STAND #24, 251

VCU 232

MANAGEMENT AREA C34

ACRES 79 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 31B Photo #'s 2384-160

Scale: 1:12000

1/4 Quad ID: SITC5NE

**SITE CHARACTERISTICS:**

Elevation: 200 to 1000 ft. Aspect: NW to SE Slope: 20 to 60 %

Landform: Smooth, frequently and infrequently dissected mountainslopes.

Slope Configuration: Valley bottom. Site Index (Farr): 83

Plant Association: Mixed conifer/blueberry and western hemlock/blueberry.

Soil: SMU = 3562D, 3225E

Parent Material: Colluvium/residuum.

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam to gravelly silt loam.

Potential of Mass Failure: Low to moderate.

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Stand 24 has a lot of weather damage and decay (pini) present.

Stand 251 has less damage, but does have scattered blowdown.

Species Composition (trees 5+" DBH): 25-60 %WH 5 %MH 30-65 %AC 5 %SS

Stand Structure: Uneven aged. Stand 24 - scrubby timber with small diameters.

Stand 251- Large diameter trees. In entire unit there are scattered poles and seedlings, with low stocking due to brush cover.

Ave. Height: 80-95 ft. Basal Area: 280 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 16-18in. Ave. TPA (trees 5+" DBH): 170-250

Ground Cover: 60%-80% blueberry; 20%-30% rusty menziesia.

Total Net Sawlog Vol/Acre: 65.9 MBF Total Unit Vol: 3282 MBF

Volume by Species: H 24.6 MBF AC 7.1 MBF SS 34.2 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Wildlife - No concerns.

Soils - Recommend full suspension over v-notches in settings 7 and 8. Split yard on notch along N.E. side of these settings. Ensure lower boundary is above slope break in settings 5 and 7.

Fisheries - Maintain unit boundary to protect C. I/II stream. BMP 12.6.

Hydro. - West half of unit is high mass wasting hazard. Maintain designed unit boundaries, employ erosion prevention measures. BMPs 13.11, 13.16.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soils resource. Protect fisheries resource along stream adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of the overstory and the likelihood of blowdown preclude the option of partial cut. Clearcut with reserve trees will minimize potentially adverse impacts of blowdown and disease on forest health as well as provide for establishment and growth of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration and artificial regeneration. Hemlock will regenerate naturally over most of unit, particularly on upper slopes. Spruce will regenerate primarily on lower slopes adjacent to stream. To ensure presence of cedar, plant cedar at wide spacing over entire unit.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit, or along TTRA buffer to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Unit is accessed by a temporary spur off of Rd. 7561. Road will be closed, waterbarred, and grass-seeded following harvest.

**Logging System:** Designed for running skyline uphill, slackline and highlead downhill. Require partial suspension for settings 5-8 (high hazard soils); full suspension over v-notches in settings 7 and 8. Directional fell away from Class I and II buffers.

**Unit Boundary:** Ensure lower boundary is above slope break in settings 5 and 7. Incorporate TTRA buffer into unit boundary layout.

**Streamside Management:** Maintain designed buffer to protect Class I/II streams and reduce erosion and sediment delivery to Class II stream.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension over high hazard soils areas. Close, waterbar, and grass-seed temporary road. Maintain TTRA buffer to prevent sediment/erosion to streams.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar following harvest. Plant 20 x 20 ft. spacing.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.


**Final Harvest:** Evaluate for harvest in 100-105 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for windfirmness and effectiveness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 2570 of the SE Chichagof Timber Sale

STAND # 5,6,11

VCU 232

MANAGEMENT AREA C34

ACRES 104 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 31B Photo #'s 2384-158

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 80 to 600 ft. Aspect: SW Slope: 10 to 35 %

Landform: Broken mountainslopes and infrequently dissected footslopes.

Slope Configuration: Convex Site Index (Farr): 71

Plant Association: Mixed conifer/blueberry.

Soil: SMU = 3662C, 5143B

Parent Material: Colluvium/residuum/ablation till over compact till.

Soil Depth: (cm) 40-90&150 Soil Texture: Loam to silt loam.

Potential of Mass Failure: Low.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date: 07/05/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low

Damaging Agents: Scattered mistletoe, lots of weather damage, and dead/dying trees.

Species Composition (trees 5+" DBH): 54 %WH 30 %MH 10 %AC 1 %SS 5%RA

Stand Structure: Uneven aged. Widely spaced smaller diameter trees on upper slopes. Larger diameter trees on lower slopes. Saps/poles in openings between overstory trees. Scattered red alder in midstory/understory on lower slopes.

Ave. Height: 81 ft. Basal Area: 260 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 12 in. Ave. TPA (trees 5+" DBH): 308

Ground Cover: 80%-90% blueberry; <5% devil's club.

Total Net Sawlog Vol/Acre: 22.9 MBF Total Unit Vol: 3015 MBF

Volume by Species: H 15.2 MBF AC 3.1 MBF SS 4.6 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Wildlife - High quality deer and brown bear habitat is locted to the south of unit. Avoid expansion of the unit into this area. Provide for 1000' estuary buffer at southeast corner.

Recreation - do not extend unit toward estuary. Hydrology - Class III channels on west and east sides of unit. Maintain boundaries to slope breaks of channels. BMP 13.16.

Cultural - Unit within high probability zone. Survey is underway. Unit will be cleared before harvest.



MANAGEMENT DIRECTION:

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect stream channels and buffers along unit boundary.

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Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Overstory decadence and poor vigor precludes considering partial cut as a viable option. Clearcut with reserve trees will minimize adverse impacts to forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of unit. Spruce will be a minor component on lower slopes closer to streams. Plant cedar at wide spacing over about half of unit to ensure species diversity in regenerating stand.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Rd.#7561 traverses across the north side of the unit then drops diagonally through the unit and intersects with Rd.#75613 near the bottom of the unit. Road grade through the unit runs 10%-15%.

**Logging System:** Designed for running skyline and highlead. Require directional felling away from and split yard v-notches; fell away from Class I stream buffer.

**Unit Boundary:** Locate boundary along slope break to Class III channels on east and west side of unit. Incorporate TTRA buffer into unit boundary on west side.

**Streamside Management:** Class III channels adjacent to unit on east and west. Protect v-notches in unit during yarding.

**Wildlife Management:** High quality deer, brown bear habitat located south of unit. Avoid expansion into this area. Provide for 1000 ft. estuary buffer at southeast corner.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Maintain drainage (culverts, ditches) on road through unit. Protect stream channels within/adjacent to unit.

**Fuel Treatment:** None prescribed.

**Planting:** Plant approx. 50 acres with cedar following harvest. Plant upper half of unit at 20 x 20 spacing.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor development of red alder in lower part of unit. If yarding disturbs soil, anticipate proliferation of alder in this area.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 100-105 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant upper half of unit (~50 acres) with cedar, 20 x 20 ft.	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen. exam included in 3rd year; monitor alder development	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92



UNIT # 2580 of the SE Chichagof Timber Sale

STAND #30,112,251

VCU 232

MANAGEMENT AREA C34

ACRES 55 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 31B Photo #'s 2384-161

Scale: 1:12000

1/4 Quad ID: SITC5NE

**SITE CHARACTERISTICS:**

Elevation: 350 to 900 ft. Aspect: NW Slope: 45 to 70 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Valley bottom. Site Index (Farr): 63

Plant Association: Mixed conifer/blueberry and Mountain hemlock/blueberry

Soil: SMU = 3247C

Parent Material: Colluvium or ablation till

Soil Depth: (cm) 150 Soil Texture: Mucky silt loam.

Potential of Mass Failure: Low to moderate.

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Pini and pinicola sighted. Dead/dying tops scattered. Little blowdown and wind damage. Some severe stem decay and minor forks/sweeps.

Species Composition (trees 5+" DBH): 75 %WH 5-15 %MH 6 %AC 5-15%SS

Stand Structure: Uneven aged. Decadent stand. Overstory is beginning to break up. Scattered poles/saps confined mostly to canopy gaps.

Ave. Height: 80-100ft. Basal Area: 320 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 140-180

Ground Cover: 70%-80% blueberry; <5% rusty menziesia and salmonberry.

Total Net Sawlog Vol/Acre: 39.3 MBF Total Unit Vol: 2598 MBF

Volume by Species: H 25.7 MBF AC 9.2 MBF SS 4.4 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils  
Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.  
Fisheries, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect v-notches within unit and fisheries resource in Class II stream adjacent to unit. Protect soil resource.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and high incidence of defect precludes partial cut. Clearcut with reserve trees will minimize adverse impacts of disease and windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit, with spruce and cedar being minor components in the regenerating stand. Spruce will likely stock area along stream buffers, with cedar regenerating on upper slopes of unit. Localized wet areas will likely be more difficult to regenerate.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides and along TTRA buffers to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** A 25 to 30 foot bridge crossing is located on the west side of the unit just prior to entering the unit. The road climbs through the unit at grades up to 18%. Close, waterbar and seed after use.

**Logging System:** Designed for running skyline and slackline. Require directional felling and yarding away from v-notches and Class I and II stream buffers. Require partial suspension for all unit (high hazard soils); Full suspension over v-notches.

**Unit Boundary:** Incorporate TTRA buffers into boundary layout. Layout boundary for windfirmness.

**Streamside Management:** Class I and II streams are adjacent to unit. Layout TTRA buffers to protect channels.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Prevention measures to prevent sediment delivery to streams. BMP 13.11, 13.16. Maintain drainage on roads, Close, waterbar, and grass-seed spurs.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffers for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92

UNIT # 2650 of the SE Chichagof Timber SaleSTAND # 39, 251VCU 232MANAGEMENT AREA C34ACRES 70 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1989 Flight Line 31B Photo #'s 2384-160Scale: 1:120001/4 Quad ID: SITC5NE**SITE CHARACTERISTICS:**Elevation: 300 to 1000 ft. Aspect: SE Slope: 40 to 55 %Landform: Smooth, infrequently dissected mountainslopes.Slope Configuration: Valley bottom. Site Index (Farr): 67Plant Association: Mixed Conifer/blueberrySoil: SMU = 3551D, 3547CParent Material: Colluvium/residuumSoil Depth: (cm) 25-40&150 Soil Texture: Mucky to gravelly silt loam.Potential of Mass Failure: Low**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: Low to moderate.Damaging Agents: Pini conks common; little weather damage; forks, crooks, sweeps, checks and cracks common in some areas. Recent blowdown is sparse.Species Composition (trees 5+\" DBH): 84 %WH 0 %MH 13 %AC 3 %SSStand Structure: Uneven aged. Larger hemlocks with scattered spruce. Understory fairly sparse and unevenly distributed due to heavy brush cover.Ave. Height: 102 ft. Basal Area: 280 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 19 in. Ave. TPA (trees 5+\" DBH): 140-170Ground Cover: 50%-70% blueberry; 5%-10% devil's club. <5% salmonberry.Total Net Sawlog Vol/Acre: 35.0 MBF Total Unit Vol: 2976 MBFVolume by Species: H 28.6 MBF AC 4.4 MBF SS 2.0 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Fisheries - No concerns. Hydrology - No concerns.Wildlife - No concerns.Soils - Recommend at least partial suspension especially in upper third of unit to protect steep slopes.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect v-notch channels within unit and Class II stream below unit boundary.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and the need to get sufficient disturbance for adequate regeneration make partial cut infeasible. Clearcut with reserve trees will minimize potentially adverse impacts to forest health and will provide for the establishment of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Disturbance during yarding will be required to break up brush continuity and create sites for regeneration. Hemlock is anticipated to regenerate over most of unit, with cedar as a minor component on upper slopes and spruce confined primarily to the lower portion of unit.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Road accesses east side of unit. Temporary spur roads in the unit will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for slackline and running skyline. Long reaches (approx 1350 ft EYD). Require directional felling away from and split yard v-notches. Require directional felling away from Class II stream buffer.

**Unit Boundary:** Layout boundary for windfirmness.

**Streamside Management:** Split yard v-notches in unit. Protect TTRA buffer below unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Maintain drainage on Rd. 75611 (culverts, ditches). Close, waterbar, and grass-seed temporary roads after harvest.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92



UNIT # 1973 of the SE Chichagof Timber Sale

STAND # 63, 79

VCU 233

MANAGEMENT AREA C34

ACRES 48 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 33B Photo #'s 2384-136

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 100 to 1000 ft. Aspect: SE to S Slope: 10 to 70 %

Landform: Smooth, frequently dissected mountainslopes and footslopes.

Slope Configuration: Valley bottom/convex. Site Index (Farr): 63

Plant Association: Mountain hemlock/blueberry, Mixed conifer/blueberry and mixed conifer/skunk cabbage.

Soil: SMU = 5243B, 3243C, 3257D

Parent Material: Ablation till over compact till.

Soil Depth: (cm) 150 Soil Texture: Silt loam to gravelly silt loam.

Potential of Mass Failure: Moderate.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 06/23/91

Stand History: Wind/slide processes appear to be major stand development process

Potential Windthrow Hazard: Low

Damaging Agents: Some pini, pinicola, and missing/dead tops. No mistletoe seen.

Species Composition (trees 5+\" DBH): 21 %WH 55 %MH 19 %AC 5 %SS

Stand Structure: Uneven aged. Upper slopes are decadent, with some scrub areas.

Saps and poles are well distributed. Majority of hemlock unmanageable due to poor form/vigor. Cedar/spruce regen. looks good.

Ave. Height: 74 ft. Basal Area: 213 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): 13 in. Ave. TPA (trees 5+\" DBH): 250

Ground Cover: 70% blueberry; <5% salmonberry; 5% skunk cabbage.

Total Net Sawlog Vol/Acre: 20.9 MBF Total Unit Vol: 1219 MBF

Volume by Species: H 8.4 MBF AC 9.0 MBF SS 3.5 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure NW boundary of setting 3 is above slope break of large v-notch.

Recommend partial suspension to protect sensitive soils and minimize disturbance to wetlands that are blocked out of unit.

Hydrology - West half of unit is high mass wasting are, with potential for sediment delivery to Class I stream. Suspension recommended. BMPS 13.9, 13.11

Fisheries, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and prevent sediment delivery to Class I stream below unit.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and poor form/vigor of hemlock in understory precludes use of partial cut. Clearcut with reserve trees will minimize adverse impacts affecting forest health and will provide for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992)

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock will regenerate naturally over most of unit, with spruce and cedar expected to be minor components in new stand. Lower slopes have localized wet areas which will likely be more difficult to regenerate. Where feasible, it is desirable to protect spruce/cedar advanced regeneration.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides and bottom of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Unit accessed by road 7561.

**Logging System:** Designed for live skyline, running skyline, and slackline. Require directional fell away from v-notch setting 3. Require partial suspension for entire unit. Directional fell, protect blocked out muskeg areas, minimize yarding through muskegs.

**Unit Boundary:** Layout windfirm boundary. Protect muskegs by providing boundary to minimize disturbance during yarding.

**Streamside Management:** Protect v-notch in setting 3. Class I stream located below unit.

**Wildlife Management:** High quality deer, brown bear, and martin habitat is located outside of unit. deer to the N.W. Bear to the S.E. Martin to the W. and S.E.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension required. Maintain Rd. 7561 (culverts, ditches).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92

UNIT # 1976 of the SE Chichagof Timber SaleSTAND # 63VCU 233MANAGEMENT AREA C34ACRES 32 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1989 Flight Line 33B Photo #'s 2384-136

Scale: 1:12000

1/4 Quad ID: SITC5NE**SITE CHARACTERISTICS:**Elevation: 400 to 1200 ft. Aspect: SE to S Slope: 10 to 70 %Landform: Smooth, frequently dissected mountainslopes.Slope Configuration: Valley bottom/convex Site Index (Farr): 77Plant Association: Mountain hemlock/blueberry, mixed conifer/blueberry and mixed conifer/skunk cabbage.Soil: (cm) SMU = 3257D, 3243C, 3247CParent Material: Colluvium/residuum/ablation till over compact till.Soil Depth: 150 Soil Texture: Silt loam.Potential of Mass Failure: Moderate.**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 06/23/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: LowDamaging Agents: Some Pini, pinicola, and missing/dead tops. Little disease. No sign of mistletoe.Species Composition (trees 5+\" DBH): 21 %WH 55 %MH 19 %AC 5 %SSStand Structure: Uneven aged. Upper slopes are decadent with some scrub areas.

Saps and poles are well distributed, but hemlock is of poor form/vigor.

Ave. Height: 74 ft. Basal Area: 213 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 13 in. Ave. TPA (trees 5+\" DBH): 250Ground Cover: 70% blueberry; <5% salmonberry; 5% skunk cabbage.Total Net Sawlog Vol/Acre: 20.9 MBF Total Unit Vol: 813 MBFVolume by Species: H 8.4 MBF AC 9.0 MBF SS 3.5 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Recommend full suspension across any v-notches that aren't split yarded in setting 1. Fisheries - No concerns. Hydrology - Western half of unit is in high mass wasting hazard area. Some potential for sediment delivery to the Class I stream below unit. Log suspension recommended, employ erosion prevention measures. BMPs 13.9 and 13.11.

Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I stream below unit.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and poor vigor of understory make partial cut impractical. Clearcut with reserve trees will minimize adverse impacts of forest health and provide for establishment and growth of desirable trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is expected to regenerate over most of unit; spruce and cedar will be minor components of regenerating stand. Lower slopes have localized wet areas which may be more difficult to regenerate in a timely manner.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, bottom or sides of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Road 7561 runs through unit.

**Logging System:** Designed for slackline and running skyline. Require partial suspension for entire unit due to high hazard soils; full suspension over v-notches that can't be split yarded. Combine with unit 1971 if both are harvested.

**Unit Boundary:** Layout windfirm boundary. Large v-notch forms east boundary between units 1976 and 1977.

**Streamside Management:** V-notches within unit require split yarding or full suspension. Class I stream located below unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Maintain drainage on Rd. 7561 (culverts, ditches). Partial suspension required to minimize soil displacement.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor v-notch along east boundary for ravelling		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 1977 of the SE Chichagof Timber SaleSTAND # 63, 64VCU 233MANAGEMENT AREA C34ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1989 Flight Line 33B Photo #'s 2384-136Scale: 1:120001/4 Quad ID: SITC5NE**SITE CHARACTERISTICS:**Elevation: 400 to 1200 ft. Aspect: SE to S Slope: 10 to 70 %Landform: Smooth frequently dissected mountainslopes and broken mt. & hill slopesSlope Configuration: Valley bottom. Site Index (Farr): 83Plant Association: Mountain hemlock/blueberry, mixed conifer/blueberry and mixed conifer/skunk cabbage.Soil: (cm) SMU = 3257D, 3643CParent Material: Colluvium/residuum/ablation till over compact tillSoil Depth: 150 Soil Texture: Silt loam to gravelly silt loam.Potential of Mass Failure: Moderate.**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 06/23/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: LowDamaging Agents: Some pini, pinicola and missing/dead tops. Little disease. No sign of mistletoe.Species Composition (trees 5+" DBH): 21 %WH 55 %MH 19 %AC 5 %SSStand Structure: Uneven aged. Decadent with some scrub areas. Saps and poles are well distributed, though understory is generally unmanageable.Ave. Height: 74 ft. Basal Area: 213 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): 13 in. Ave. TPA (trees 5+" DBH): 250Ground Cover: 70% blueberry; <5% salmonberry; 5% skunk cabbage.Total Net Sawlog Vol/Acre: 20.9 MBF Total Unit Vol: 998 MBFVolume by Species: H 8.4 MBF AC 9.0 MBF SS 3.5 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils - Split yard v-notch along west side of unit. Recommend partial susp.Fisheries - No concerns. Hydrology - Unit is in a high mass wasting hazard area with potential for sediment delivery to Class I stream below unit. Log suspension recommended. Employ erosion prevention measures. BMPs 13.9 and 13.11.Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I stream below unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Poor vigor of overstory/understory precludes partial cut option. Clearcut with reserve trees minimizes adverse impacts on forest health and provides for establishment of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of area; spruce and cedar are expected to be minor components in new stand. Localized wet areas will likely take longer to regenerate.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Rd. #7561 and a temporary spur road accesses the unit. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline and slackline. Require partial suspension for entire unit. Combine with unit 1970 if both are harvested.

**Unit Boundary:** Units 1976 and 1977 are adjacent to each other. Large v-notch provides boundary between units. Provide for windfirm boundary along notch.

**Streamside Management:** Class I stream located below unit. Large v-notch forms west unit boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Maintain drainage on Rd. 7561 (culverts, ditches). Close, waterbar, and grass-seed spurs. Partial suspension required.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor v-notch along west boundary for ravelling		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 1980 of the SE Chichagof Timber Sale

STAND #43,46,57

VCU 233

MANAGEMENT AREA C34

ACRES 63 Determined How: GIS By Whom: T. Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 33 Photo #'s 1184-164

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 120 to 900 ft. Aspect: NW Slope: 30 to 70 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Valley bottom/convex. Site Index (Farr): 72

Plant Association: Mixed conifer/blueberry and mountain hemlock/blueberry.

Soil: (cm) SMU = 3247C, 3243C

Parent Material: Colluvium/ablation till over compact till.

Soil Depth: 150 Soil Texture: Silt loam to mucky silt loam.

Potential of Mass Failure: Low to moderate.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 06/19/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate to high

Damaging Agents: Some pini, pinicola and dead/dying tops. Blowdown scattered throughout stands.

Species Composition (trees 5+" DBH): 20-50 %WH 20-80 %MH 20-60 %AC %SS

Stand Structure: Uneven aged stands. Mostly decadent, with somewhat ragged, poor crowns. Understory scattered, predominantly in canopy gaps. Much of understory has poor form and vigor, particularly under the overstory canopy.

Ave. Height: 75-85 ft. Basal Area: 210 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" DBH): 150-200

Ground Cover: 40%-70% blueberry; <5% salmonberry.

Total Net Sawlog Vol/Acre: 13.8 MBF Total Unit Vol: 1051 MBF

Volume by Species: H 7.7 MBF AC 3.2 MBF SS 2.9 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure south boundary is above slope break of v-notch and split yard notch between settings 1 and 2 (extends into setting 3). Recommend at least partial suspension on slopes >65% and partial suspension is desirable on rest of unit. Hydrology - Unit in a high mass wasting area. Some potential for sediment delivery to C.I channel. Log suspension recommended, employ erosion prevention measures. BMPS 13.9, 13.11. Fisheries, Wildlife - No concerns. Visuals - Locate roads and landings to minimize visual impacts.



MANAGEMENT DIRECTION:

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notch and wetter areas in unit as well as streams adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut feasible in settings 1 and 2; decadence of overstory and threat of blowdown in remainder of unit precludes partial cut. Clearcut with reserve trees will minimize adverse impacts associated with blowdown and forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Settings 1 and 2: partial cut, leaving small groups of trees, particularly in larger wet areas. Remainder of unit: clearcut harvest followed by natural regeneration. Hemlock will likely be main regenerating species, with cedar becoming a minor component in new stand. Upper slopes have surface rock in places which will be more difficult to regenerate. Lower slopes have wet inclusions which will also be more difficult to regenerate; these areas will have groups of trees left to improve stocking and provide diversity.

Marking Guide: Settings 1 and 2: ITM small groups of trees (approx. 0.5-1 acre in size) such that about 1/3 of area (10 acres out of 30 acres) is left. Locate groups such that major wet areas, small streams, and small meadows/muskegs are included in groups for protection. Orient groups between skyline roads to protect them during yarding, and design to provide connectivity to habitat between unit and Class I stream. For remainder of unit, designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

**Transportation System:** Accessed by Rd.#75605 and a temporary spur road that climbs up to the south east setting of the unit. The temporary spur road will be closed, waterbarred, and grass-seeded after harvest. For visuals, locate roads and landings to minimize visual impacts.

**Logging System:** Designed for running skyline. Require partial suspension for entire unit. Directionally fell and split yard v-notches. ITM or LTM groups to leave; consider locations relative to yarding needs. Designate corridors, lateral yarding capability needed in settings 1 and 2.

**Unit Boundary:** Ensure south boundary is above slope break of v-notch along south side of unit. Portion of TTRA buffer in NW corner of unit.

**Streamside Management:** TTRA buffer touches W boundary. Protect small streams/wet areas in settings 1 and 2 by inclusion in groups to be left.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** For settings 1 & 2 leave/protect as groups along stream courses/wet areas. Leave 2 snags per acre. Refer to Marking Guide for instructions.

**Erosion Control:** Partial suspension required. Maintain Rd. 75605 (culverts, ditches). Close, waterbar, and grass-seed spurs post-use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor groups left in settings 1 and 2 for windfirmness and use by wildlife	KV	Silv/Wild.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1981 of the SE Chichagof Timber Sale

STAND #56,57,88

VCU 233

MANAGEMENT AREA C34

ACRES 45 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 33 Photo #'s 1184-165

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 400 to 1100 ft. Aspect: NW to SW Slope: 30 to 70 %  
Landform: Smooth infrequently dissected mt.slopes and gently sloping lowlands.  
Slope Configuration: Valley bottom/convex. Site Index (Farr): 92  
Plant Association: Mixed conifer/blueberry and mountain hemlock/blueberry.

Soil: (cm) SMU = 3521D, 6145B

Parent Material: Colluvium/residuum/ablation till.

Soil Depth: 150 Soil Texture: Loam to gravelly silt loam.

Potential of Mass Failure: Low to moderate.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 06/19/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Some pini, pinicola, and dead/dying tops. Not a lot of defect.  
No mistletoe sighted. Scattered blowdown in some areas, though not heavily  
concentrated.

Species Composition (trees 5+" DBH): 20-50 %WH 20-80 %MH 20-60 %AC 0-5 %SS

Stand Structure: Crowns overmature and ragged in areas. Uneven aged stands  
except stand 88 which is even aged and still fairly vigorous. Understory gener-  
ally of poor form and vigor, sparse stocking.

Ave. Height: 75-85 ft. Basal Area: 210 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" DBH): 150-200

Ground Cover: 40%-70% blueberry; <5% salmonberry.

Total Net Sawlog Vol/Acre: 27.4 MBF Total Unit Vol: 1508 MBF

Volume by Species: H 15.7 MBF AC 10.3 MBF SS 1.4 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Recommend full suspension across any v-notches that can't be split yard-  
ed and partial suspension over rest of unit.

Fisheries, Wildlife, Hydrology - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and v-notches within unit. Provide for diversity through retention of groups of vigorous trees.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut feasible in settings 4 and portion of 5, where overstory is still vigorous. This area is primarily even aged. The remainder of the unit has poor overstory vigor and crown conditions. Clearcut with reserve trees will minimize adverse impacts of disease and windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Setting 4 and area of setting 5 designated for uphill yarding: leave small groups of trees for diversity and to continue growth. Remainder of unit: clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce and cedar will be minor components of new stand. Wetter areas will likely be difficult to regenerate.

Marking Guide: Setting 4 and uphill yarding area of setting 5: ITM small groups (0.5-1 acre in size) to be left. Locate groups to include wetter areas, small streams and muskegs within leave areas. Orient groups between skyline roads and provide connectivity to unharvested habitat below unit boundary. Approximately 40% of area (5 of 11 acres) should be left in groups. For remainder of unit, designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Accessed by Rd.# 756051.

**Logging System:** Designed for running skyline and slackline. Directional fell away from and split yard v-notches. Full suspension over v-notches that can't be split yarded. ITM or LTM leave groups; consider yarding needs, designate corridors, lateral yarding required.

**Unit Boundary:** Provide for windfirm boundary.

**Streamside Management:** Several v-notches located within unit boundary. Protect through split yarding or full suspension if yarded over.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** In setting 4 & 5 partial cut. Leave/protect in patches within clearcut. Also leave 2 snags per acre in entire unit. Refer to Marking Guide.

**Erosion Control:** Maintain drainage on Rd. 756051 (culverts, ditches). Minimize disturbance in and around v-notches.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base need for PCT on results of PCT exam.

**Commercial Thinning:** Possibility exists for commercial thinning since site is highly productive. Evaluate using stand exam 55-60 years after harvest.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 17-20 years after harvest (based on results of exam)		RD Silv.
Monitor groups left in settings 4 and 5 for windfirmness and wildlife use		Silv/Wild.
Stand exam 55-60 years after harvest to evaluate CT need		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92

UNIT # 1992 of the SE Chichagof Timber Sale

STAND #32, 43 VCU 233 MANAGEMENT AREA C34

ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 34B Photo #'s 2484-100  
Scale: 1:12000  
1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 300 to 1200 ft. Aspect: NW Slope: 35 to 90 %  
Landform: Smooth, frequently dissected mountainslopes.  
Slope Configuration: Convex/valley bottom. Site Index (Farr): 87  
Plant Association: Western hemlock/blueberry, western hemlock/yellow cedar/  
blueberry and western hemlock/blueberry-devil's club.  
Soil: (cm) SMU = 3258D, 3247C  
Parent Material: Colluvium or ablation till over compact till.  
Soil Depth: 150 Soil Texture: Mucky silt loam.  
Potential of Mass Failure: Moderate to high.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 06/20/91  
Stand History: Wind/slide processes appear to be the major stand processes  
Potential Windthrow Hazard: Moderate to high.  
Damaging Agents: Lots of broken/dead tops and windthrow. Some forks and crooks.

Species Composition (trees 5+" DBH): 80-90%WH 0 %MH 5-15 %AC 5 %SS  
Stand Structure: Uneven aged. Scattered large trees. Generally poor vigor and  
crowns. Midstory mostly in canopy gaps. Understory unmanageable due to poor  
vigor and crowns.  
Ave. Height: 100-120 ft. Basal Area: 220 sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+" DBH): 15-25in. Ave. TPA (trees 5+" DBH): 125-175  
Ground Cover: 40%-70% blueberry; 5% devil's club.

Total Net Sawlog Vol/Acre: 32.4 MBF Total Unit Vol: 1539 MBF  
Volume by Species: H 21.1 MBF AC 1.3 MBF SS 10.0 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Split yard on v-notch between settings and recommend full suspension on  
steep slopes below the backline. Fisheries - No concerns. Hydrology - Unit is  
located in high mass wasting hazard area with potential for sediment delivery  
to Class I stream below unit. Log suspension recommended. Employ erosion pre-  
vention measures. BMPs 13.9 and 13.11.  
Visuals - Locate roads and landings to minimize visual impacts.  
Fisheries, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource, particularly in areas of high soil hazard.

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**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Stand health and risk of blowdown make partial cut infeasible. Clearcut with reserve trees will minimize the occurrence of adverse impacts associated with disease and windthrow affecting forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; cedar will likely be a minor stand component. Areas of shallow soils/rocky areas on upper slopes and areas of poorer drainage will likely be more difficult to regenerate.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along backline, sides and bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by temporary spur road off Rd.#75604. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest. Locate roads and landings to minimize visual impact.

**Logging System:** Designed for running skyline and slackline. Require directional felling and split yard v-notch. Require partial suspension for settings 1 and 3; full suspension for settings 2 and 4 due to high hazard soils.

**Unit Boundary:** Layout boundary to maximize windfirmness, as this area has high blowdown potential.

**Streamside Management:** Protect v-notch. Class I stream located below unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Require partial/full suspension to minimize soil disturbance. Close, waterbar, and grass-seed spur roads after harvest.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Monitor regeneration carefully, particularly on upper slopes where soils are more shallow and surface rock exists.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base need for PCT on results of exam.

**Commercial Thinning:** High productivity of site makes CT a possibility. Evaluate using stand exam 55-60 years after harvest.

**Final Harvest:** Evaluate for final harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 2030 of the SE Chichagof Timber Sale

STAND # 6,7,11

VCU 233

MANAGEMENT AREA C34

ACRES 54 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-186

Scale: 1:12000

1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 50 to 900 ft. Aspect: NW to NE Slope: 5 to 40 %

Landform: Smooth infrequently dissected mt.slopes & frequently dissected ftslopes

Slope Configuration: Valley bottom Site Index (Farr): 84

Plant Association: Mixed conifer/skunk cabbage.

Soil: (cm) SMU = 3547C, 5256B

Parent Material: Colluvium/ablation till over compact till.

Soil Depth: 150 Soil Texture: Mucky to gravelly silt loam.

Potential of Mass Failure: Low.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 06/21/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Low to moderate mistletoe; some pini conks; lots of dead/dying trees and dead/broken tops.

Species Composition (trees 5+" DBH): 5-10 %WH 80-100%MH 0-5 %AC 2 %SS

Stand Structure: Uneven aged. Fairly open stand with lots of canopy gaps. Poor crowns and vigor. Poles/seedlings have uniform distribution but poor crowns and vigor.

Ave. Height: 109 ft. Basal Area: 80 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 26 in. Ave. TPA (trees 5+" DBH): 22

Ground Cover: 25%-50% blueberry; 10%-20% rusty menziesia; 5% skunk cabbage.

Total Net Sawlog Vol/Acre: 10.5 MBF Total Unit Vol: 684 MBF

Volume by Species: H 9.2 MBF AC 1.3 MBF SS 0 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Wildlife-Provide for 500 foot beach fringe at N boundary. Provide eagle nest tree buffer. Visuals-Locate roads & landings to min. visual impacts. Locate & design rockpits to min. impacts. Mit. effects of sidecast slash w/in 30 feet of road shoulders. Blend bdries. w/ topo. and natural openings. Rec.-With a net loss of acres, don't extend towards the saltwater. Soils-Ensure buffer on stream along NW boundary. Full suspension over stream in setting 1. Recommend at least partial suspension in setting 1, min. disturbance to blocked out wetlands. Cultural-high prob. zone. Survey underway. Clear before harvest.

MANAGEMENT DIRECTION:

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume for APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

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Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Poor vigor of overstory precludes use of partial cut. Clearcut with reserve trees provides for the establishment and growth of desired trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; cedar will likely be a minor component in new stand, as will spruce. Localized wet areas dominated by skunk cabbage will likely be difficult to regenerate.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group along unit boundaries to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Accessed by Rd.#75602 and a temporary spur off Rd.# 75602. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest. For visuals - Locate road and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for live skyline, running skyline, and highlead. Require directional felling and yard away from v-notch. Require partial suspension for setting 1. Protect blocked out muskeg. Directionally fell away from buffer on streamcourse.

**Unit Boundary:** Blend w/ topo. & natural openings. Est. boundary around muskeg. Provide windfirm boundary.

**Streamside Management:** Ensure adequate buffer on stream along northwest boundary. Protect v-notch within unit.

**Wildlife Management:** Provide for 500' beach fringe and eagle nest tree buffer.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension-setting 1. Close, waterbar, and grass-seed spur roads. Maintain Rd. 75602 drainage (culverts, ditches).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Monitor regen. in wetter areas for adequacy.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 2031 of the SE Chichagof Timber Sale

STAND # 6, 11 VCU 233 MANAGEMENT AREA C34

ACRES 21 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-186  
Scale: 1:12000  
1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 100 to 500 ft. Aspect: NW to NE Slope: 5 to 40 %  
Landform: Smooth, infrequently dissected mountainslopes.  
Slope Configuration: Valley bottom Site Index (Farr): 69  
Plant Association: Mixed conifer/skunk cabbage

Soil: (cm) SMU = 3551D, 3547C  
Parent Material: Colluvium/residuum/ablation till over compact till.  
Soil Depth: 150 Soil Texture: Silt loam to mucky silt loam.  
Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 06/21/91  
Stand History: Wind processes appear to be the major stand development influence  
Potential Windthrow Hazard: Low to moderate.  
Damaging Agents: Low to moderate mistletoe. Some pini conks. Lots of dead/dying trees, and dead/broken tops.

Species Composition (trees 5+" DBH): 5-10 %WH 80-100%MH 5 %AC 2 %SS  
Stand Structure: Uneven aged. Fairly open stand. Lots of canopy gaps. Poor crowns and vigor. Poles/seedlings are uniformly distributed, but have poor crowns/vigor and are infected with mistletoe. Heavy brush in some areas.  
Ave. Height: 109 ft. Basal Area: 80 sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+" DBH): 26 in. Ave. TPA (trees 5+" DBH): 22  
Ground Cover: 25%-50% blueberry; 10%-20% rusty menziesia; 5% skunk cabbage.

Total Net Sawlog Vol/Acre: 20.6 MBF Total Unit Vol: 751 MBF  
Volume by Species: H 18.3 MBF AC 2.3 MBF SS 0 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Wildlife - Provide for a 500 foot beach fringe at the northern boundary of unit.  
Visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts. Mitigate effects of sidecast slash within 30 feet of road shoulders. Blend boundaries with topographic features and natural openings. Recreation - If there is a net loss of acreage in this unit, don't extend the unit towards the saltwater. Soils - Recommend partial suspension in northeast corner of setting 2 because of what appears to be wetness problems. Fisheries - No concerns. Hydrology - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large woody material. Protect soil resource, particularly in wetter areas.

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Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Heavy mistle infection in all canopy layers and decadent condition of overstory make partial cut infeasible. Clearcut with reserve trees minimizes the occurrence of potentially adverse impacts of disease affecting forest health, as well as providing for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of area; wetter areas will likely contain cedar/spruce in smaller numbers. Mistletoe will likely spread from adjacent uncut stands to regenerating hemlock, but infection should be lighter and confined primarily to areas adjacent to unit boundaries.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Temporary spur road with an adverse haul accesses this unit. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest. For visuals - locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for running skyline. Require partial suspension (wet soils). Tie north boundary into existing clearcuts. May need artificial or multiple guy anchors for setting 1 due to adjacent muskeg. Fell away from buffer on streamcourse.

**Unit Boundary:** Blend w/ topo. and natural openings. If there is net loss of acres, don't extend the unit towards the saltwater. Tie boundary on north to existing clearcuts.

**Streamside Management:** There are no streams within the immediate vicinity of the unit.

**Wildlife Management:** Provide for 500' beach fringe at northern boundary.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension required for wet soils. Close, waterbar, and grass-seed temporary spur road.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed. Monitor regeneration in wetter areas; if inadequate, consider planting cedar.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** Monitor response of brush following yarding; areas of heavy brush may need treatment to get adequate regeneration.

**Precommercial Thinning:** None prescribed at this time. Monitor development of mistletoe in regeneration; consider PCT as method to lighten infection.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; monitor regeneration in wetter areas closely	KV	RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor spread of mistletoe; plan TSI exam 14-15 years after harvest to assess need for PCT as tool for mistletoe control		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 2040 of the SE Chichagof Timber SaleSTAND # 6,7,271 VCU 233/234 MANAGEMENT AREA C34ACRES 70 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-186Scale: 1:120001/4 Quad ID: SITC4NW**SITE CHARACTERISTICS:**Elevation: 300 to 1100 ft. Aspect: NE Slope: 35 to 40 %Landform: Smooth, infrequently dissected mountainslopes.Slope Configuration: Valley bottom. Site Index (Farr): 80Plant Association: Mixed conifer/blueberry.Soil: (cm) SMU = 3547CParent Material: Colluvium/ablation till over compact till.Soil Depth: 150 Soil Texture: Mucky silt loam.Potential of Mass Failure: Low.**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 Date 06/21/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: Low.Damaging Agents: Moderate amount broken/dead tops. Some pini conks. Minor forks, crooks and sweeps.Species Composition (trees 5+" DBH): 10 %WH 89 %MH 1 %AC 0 %SSStand Structure: Uneven aged. Scattered large trees with canopy gaps between them. Midstory - 10"-16" diameter. Understory - 6-15 ft. high and in poor formAve. Height: 67 ft. Basal Area: 140 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): 10 in. Ave. TPA (trees 5+" DBH): 280Ground Cover: 50% blueberry.Total Net Sawlog Vol/Acre: 11.9 MBF Total Unit Vol: 974 MBFVolume by Species: H 8.8 MBF AC 3.1 MBF SS 0 MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts. Mit. effects of sidecast slash within 30 ft. of road shoulders. Make limited adjustment to soften boundaries.Soils - No soils concerns.Fisheries - No concerns.Hydrology - Maintain unit boundary to slope break of Class III channel on west side of unit. BMP 13.16.

MANAGEMENT DIRECTION:

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags, large down woody material, and groups of vigorous, healthy trees.

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Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut feasible in settings 1 and 2. Remainder of unit should be clearcut due to likelihood of logging damage due to incompatible logging systems. Clearcut with reserve trees will minimize the occurrence of logging damage which could adversely affect forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Settings 1 and 2: Retain groups of trees up to 15" DBH while removing larger trees. Remainder of unit: clearcut harvest followed by natural regeneration. Hemlock is expected to regenerate over most of unit; cedar will be a minor component in regenerating stand.

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Marking Guide: Settings 1 and 2: ITM trees in groups (1-2 acres in size) such that about 50% of area (17 of 34 acres) is retained. Within each group, retain trees up to 15" DBH; trees greater than 15" DBH should be removed. Orient groups between skyline corridors and provide connectivity to unit boundaries. Remainder of unit: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundaries to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Accessed by temporary spur that will be closed, water-barred, and grass-seeded. For visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for running skyline and downhill highlead. Require directional felling and yard away from v-notches. ITM or LTM leave groups; Consider yarding requirements, designate corridors, require partial suspension, lateral yarding and directional falling in groups.

**Unit Boundary:** Make limited adjustments to soften the straight-edge effect of boundaries. Locate west boundary on slope break above Class III stream.

**Streamside Management:** Protect Class III stream on west boundary. V-notches located within unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** Partial cut settings 1 and 2. Leave/protect as patches within clearcut. Also leave 2 snags per acre in entire unit. Refer to Marking Guide.

**Erosion Control:** Partial suspension in settings 1 and 2. Close, waterbar, and grass-seed spur post-use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor groups in settings 1 and 2 for windfirmness, wildlife		Silv/Wild.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 1810 of the SE Chichagof Timber Sale

STAND #69,73,74

VCU 234

MANAGEMENT AREA C34

ACRES 52 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-189

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 500 to 1100 ft. Aspect: SE Slope: 20 to 55 %  
Landform: Infrequently dissected ft.slopes/smooth infrequently dissected mtslopes  
Slope Configuration: Convex Site Index (Farr): 62  
Plant Association: Western hemlock/blueberry, and mixed conifer/blueberry.

Soil: SMU = 5143B, 3547C, 3643C

Parent Material: Ablation till over compact till/colluvium.

Soil Depth: (cm) 150 Soil Texture: Silt loam to mucky silt loam.

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 (Stand 69 only) Date 08/16/91  
Stand History: Wind processes appear to be the major stand development influence  
Potential Windthrow Hazard: Moderate

Damaging Agents: Mistletoe moderate to high over most of stand. Weather damage (forks, sweep) scattered across area. Rots present though defect is not high.

Species Composition (trees 5+" DBH): 15 %WH 85 %MH %AC %SS

Stand Structure: Uneven aged stand. Overstory decadent, heavily mistletoed, with generally poor vigor. Understory poles/saps scattered, also infected with mistletoe.

Ave. Height: 70-110ft. Basal Area: 400sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 23 in. Ave. TPA (trees 5+" DBH): 139

Ground Cover: 70%-90% blueberry, <5% devil's club, rusty menziesii.

Total Net Sawlog Vol/Acre: 36.3 MBF Total Unit Vol: 2301 MBF

Volume by Species: H 36.3 MBF AC 0 MBF SS 0 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Split yard on v-notches wherever possible and full suspension over any others.

Fisheries, Hydrology and Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Reduce incidence of mistletoe in new stand. Protect v-notches and soil resource.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Heavy mistletoe in overstory and decadent stand conditions precludes use of partial cut. Clearcut with reserve trees will minimize the occurrence of potentially adverse impacts of disease on forest health and will provide for establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is expected to regenerate adequately over the unit. Localized areas of surface rock will likely be more difficult to get adequate stocking. Regenerating stand will likely become infected with mistletoe from surrounding stands, but infection will be lighter and less widespread than current conditions.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Clump/group snags along unit boundaries to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**INTEGRATED SILVICULTURE PRESCRIPTION**

Page **3** of **3**

**Transportation System:** No problem with access. Temporary spurs will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline and slackline (approx. 1200 ft. EYD) Require directional felling and split yarding away from v-notches.

**Unit Boundary:** Layout boundary to be windfirm, as area has potential for blow-down.

**Streamside Management:** No concerns. Unit is located above a TTRA buffer.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Split yard v-notches. Maintain Rd. 75653 (culverts, ditches). Close, waterbar, and grass-seed spurs post-use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed at this time. Monitor mistletoe development in regeneration. Consider PCT as tool for sanitation if needed.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor mistletoe development in regen. and schedule TSI exam if sanitation needed		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 1820 of the SE Chichagof Timber Sale

STAND #69,71,98,99

VCU 234

MANAGEMENT AREA C34

ACRES 55 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 34B Photo #'s 2484-101

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 900 to 1420 ft. Aspect: SE Slope: 40 to 70+ %

Landform: Smooth, infrequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 93

Plant Association: Western hemlock/blueberry, western hemlock/yellow cedar/  
blueberry and mountain hemlock/blueberry

Soil: SMU = 3525D

Parent Material: Colluvium/residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam to gravelly silt loam.

Potential of Mass Failure: Low to moderate

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 (Stand 69 only) Date 08/16/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate

Damaging Agents: Lots of pistol butting. Some pini and pinicola. Broken tops  
common in some areas. Mistletoe is prevalent throughout stand.

Species Composition (trees 5+" DBH): 15 %WH 85 %MH %AC %SS

Stand Structure: Uneven aged, decadent stand. Overstory has generally poor  
vigor. Understory scattered, infected with mistletoe.

Ave. Height: 70-110ft. Basal Area: 400 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 23 in. Ave. TPA (trees 5+" DBH): 139

Ground Cover: 50%-80% blueberry; 5% devil's club.

Total Net Sawlog Vol/Acre: 36.3 MBF Total Unit Vol: 1868 MBF

Volume by Species: H 36.3 MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Split yard on v-notches and ensure southwest boundary is above slope  
break of v-notch. If possible, recommend partial suspension on upper half of  
unit.

Fisheries, Hydrology, Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource, particularly on upper portion of unit. Protect v-notches within unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Presence of heavy mistletoe and decadence of overstory precludes partial cut. Clearcut with reserve trees will minimize the potentially adverse impacts of disease on forest health and will provide for the establishment of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit. Localized areas of surface rock will be difficult to regenerate. Mistletoe will likely infect the regenerating stand from adjacent uncut areas, but should not be a major problem. Areas adjacent to unit boundary will likely become infected over time.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Accessed by temporary spur that will be closed, water-barred and grass-seeded after harvest.

**Logging System:** Designed for slackline and running skyline. Require partial suspension for area above temporary road.

**Unit Boundary:** Ensure southwest boundary is above slope break of v-notch.

**Streamside Management:** No concerns. Protect v-notch along southwest boundary. Stream located below unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Require partial suspension in area above road. Close, waterbar and grass-seed spur post-harvest.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs for PCT on results of exam. Consider sanitation of mistletoe in PCT need.

**Commercial Thinning:** Possibility for CT since this is a high site. Evaluate for CT using stand exam 55-60 years following harvest.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.
Stand exam to evaluate need/opportunity for comm. thinning		
55-60 years after harvest		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 1830 of the SE Chichagof Timber Sale

STAND #69,78,83,87,89 VCU 234

MANAGEMENT AREA C34

ACRES 41 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-190

Scale: 1:12000

1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 600 to 1150 ft. Aspect: N to NW Slope: 10 to 100 %

Landform: Smooth infreq. dissected mt.slopes/freq. dissected ft.slopes/alluv fans

Slope Configuration: Convex. Site Index (Farr): 55

Plant Association: Mixed conifer/blueberry and western hemlock/blueberry.

Soil: SMU = 3243C, 5261B, 5143B

Parent Material: Ablation till over compact till and colluvium

Soil Depth: (cm) 150 Soil Texture: Silt loam to gravelly silt loam

Potential of Mass Failure: Low to moderate.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 08/16/91

Stand History: Wind/slide processes appear to be the major development processes

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Missing/dead tops are common. Pini, frost cracks, and basal rot are fairly common. Mistletoe is moderate to high. Small areas of blowdown throughout area.

Species Composition (trees 5+\" DBH): 50-60 %WH 20-40 %MH 5-15 %AC 5-15 %SS

Stand Structure: Uneven aged. Scrubby in most areas. Saps/poles are adequate, but there is heavy brush competition over much of area.

Ave. Height: 85-100ft. Basal Area: 330 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): 19 in. Ave. TPA (trees 5+\" DBH): 160-190

Ground Cover: 60%-80% blueberry, <15% rusty menziesia <8% devil's club.

Total Net Sawlog Vol/Acre: 33.0 MBF Total Unit Vol: 1658 MBF

Volume by Species: H 28.9 MBF AC 1.7 MBF SS 2.4 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - High hazard soils in upper half of setting 1; recommend full suspension there and on slopes steeper than 55% due to wetness. Split yard or full suspension across v-notches for entire unit. Partial suspension is recommended for rest of unit.

Wildlife - No concerns. Fisheries - no concerns.

Hydrology - Unit is in a high mass wasting hazard area. Some potential for sediment delivery to the C.I stream. Objective: reduce erosion. Log suspension recommended, employ erosion prevention measures. BMPs 13.9 and 13.11



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Reduce potential for sediment delivery to Class I stream below unit.

**Alternatives Considered:** Regeneration harvest considered include clearcut with reserve trees and partial cut. Heavy mistletoe, likelihood of blowdown and poor vigor of overstory make partial cut infeasible. Clearcut with reserve trees will minimize potentially adverse impacts of disease/windthrow on forest health and provide for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of the unit, with cedar/spruce being a minor component. Localized areas of rocky/shallow soils will be difficult to regenerate. Mistletoe from adjacent stands will likely infect regeneration, but will likely infect only areas adjacent to unit boundary.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by temporary spur road that will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Require directional felling and split yarding away from v-notches; full suspension over v-notches that can't be split yarded. Require partial suspension for entire unit; full suspension for setting 1.

**Unit Boundary:** Layout boundary for windfirmness.

**Streamside Management:** Split yard v-notches in unit. Class I stream located below unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Unit is in high mass wasting hazard area. Some potential for sediment delivery to the C.I stream. Require partial/full suspension to minimize soil disturbance. Close, waterbar and grass-seed temp. road post-use.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed. Monitor mistletoe development in regen. and consider PCT as tool for sanitation if conditions warrant.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor mistletoe infection in regen.; use TSI exam if needed		RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1850 of the SE Chichagof Timber Sale

STAND #51,58,59,

VCU 234

MANAGEMENT AREA C34

ACRES 62 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 36 Photo #'s 1684-103

Scale: 1:12000

1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 350 to 1350 ft. Aspect: NW Slope: 5 to 70 %

Landform: Smooth, frequently dissected mountainslopes and footslopes.

Slope Configuration: Convex Site Index (Farr): 83

Plant Association: Mixed conifer/blueberry, western hemlock/blueberry and mountain hemlock/blueberry.

Soil: SMU = 3247C, 3002E, 5256B

Parent Material: Colluvium/ablation till over compact till.

Soil Depth: (cm) 150 Soil Texture: Mucky to gravelly silt loam.

Potential of Mass Failure: Moderate.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11. Date 08/15/91

Stand History: Wind/slide processes appear to be the major stand influences

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Low defect in most areas. Moderate to high decay. Pini is common. Mistletoe is moderate to high in most of area.

Species Composition (trees 5+" DBH): 55-70 %WH 20-30 %MH 5-10 %AC 5-40 %SS

Stand Structure: Uneven aged. Overstory - generally good form. Saps/poles are mostly adequate, but understocked in some places. Brushy.

Ave. Height: 90-100ft. Basal Area: 230 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 18 in. Ave. TPA (trees 5+" DBH): 140-160

Ground Cover: 20%-40% blueberry; <15% salmonberry, devil's club and rusty menziesia.

Total Net Sawlog Vol/Acre: 29.8 MBF Total Unit Vol: 2227 MBF

Volume by Species: H 24.6 MBF AC 0.8 MBF SS 4.4 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Wildlife-High quality (HSI= 1.0) brown bear habitat is in the riparian area to the NW. Avoid expansion into this area.

Visuals-Locate roads & landings to min. visual impacts. Locate rockpits to min. visual impacts. Mitigate effects of sidecast slash w/in 30 ft. of road shoulders. Make limited adjustments to soften boundaries. Soils-Recommend full suspension in setting 4 and partial suspension in settings 6 & 7 due to high haz. soils; split yard v-notches. Fisheries-no concerns. Hydrology-Unit is in a high mass wasting hazard area. High potential for sed. del. to the C.III streams & potentially to the C.I. Protect C.III channels, reduce erosion. Split yard C.III channels, log susp. recommended. BMPS 13.9, 13.11, 13.16.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and minimize possibility of impact to Class III and I channels within and downstream from unit.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Mistletoe in overstory and decadence of stand preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate over most of unit, though mistletoe will likely spread to regen. Spruce will regenerate on lower slopes near streams. Cedar will be planted over about 50% of unit to ensure its presence in regenerating stand.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Road 7565 runs through the unit then switchbacks and goes through the top half of the unit. For visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for running skyline and slackline. Require directional fell and yard away from v-notch in settings 2, 3, and 4. Require partial susp. for entire unit; full susp. for set #4 (high hazard soils). Directional fell away from Class II buffer.

**Unit Boundary:** Incorporate Class II buffers into unit boundary layout.

**Streamside Management:** Class III channels within unit; Class I and II streams adjacnt to unit. Split yard v-notches.

**Wildlife Management:** High quality (HSI=1.0) brown bear habitat located outside unit to NW in riparian area. Avoid expansion into this area.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Unit is in high mass wasting hazard area. High potential for sed. del. to the C.III streams & potentially to the C.I. Objective: protect C.III channels, reduce erosion. Split yard on C.III channels within the unit, log susp. recommended, employ erosion prevention measures. BMPs 13.9,13.11,13.16

**Fuel Treatment:** None prescribed.

**Planting:** Plant ~ 50% (30 acres) with cedar following harvest. Area to plant is upper half of unit. Plant 20 x 20 ft.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed. If hemlock becomes heavily infected with mistletoe, consider PCT as sanitation tool.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest in 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant ~ 30 acres with cedar following harvest, 20 x 20 ft.	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural regen. during 3 year exam	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Road maintenance (culverts, ditches) on Rd. 7565		Eng.
Monitor TTRA buffers for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1853 of the SE Chichagof Timber Sale

STAND # 51,59,185

VCU 234

MANAGEMENT AREA C34

ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-190

Scale: 1:12000

1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 900 to 1500 ft. Aspect: NW Slope: 5 to 70 %

Landform: Broken mountainslopes and hillsides.

Slope Configuration: Convex. Site Index (Farr): 98

Plant Association: Mixed conifer/blueberry, western hemlock/blueberry and mountain hemlock/blueberry.

Soil: SMU = 3621D, 3002E

Parent Material: Colluvium/residuum

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam.

Potential of Mass Failure: Moderate.

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 08/15/91

Stand History: Wind/slide processes appear to be major stand influences.

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Low defect in most areas. Moderate to high decay with pini conks common. Mistletoe moderate to high.

Species Composition (trees 5+" DBH): 55-70 %WH 20-30 %MH 5-10 %AC 5-40 %SS

Stand Structure: Uneven aged. Overstory has generally good form. Saps and poles are mostly adequate but understocked in some areas.

Ave. Height: 90-100ft. Basal Area: 230 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 18 in. Ave. TPA (trees 5+" DBH): 140-160

Ground Cover: 20%-40% blueberry; <15% salmonberry, devil's club and rusty menziesia.

Total Net Sawlog Vol/Acre: 21.8 MBF Total Unit Vol: 1024 MBF

Volume by Species: H 17.6 MBF AC 2.0 MBF SS 2.2 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts. Mit effects of sidecast slash within 30 feet of road shoulders. Make limited adjustments to soften boundaries.

Soils - Split yard on v-notch that runs down the center of the unit between settings and ensure west boundary avoids the series of notches in that vicinity. Recommend full suspension in settings 1 and 2 and partial suspension in rest of unit.

Fisheries and hydrology have no concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect v-notch and soil resource.

**Alternatives Considered:** Regeneration harvests considered include clearcut with reserve trees and partial cut. Mistletoe presence in overstory precludes partial cut. Clearcut with reserve trees minimizes adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural and artificial regeneration. Plant cedar 20 x 20 ft. over entire unit to ensure presence in regenerating stand. Hemlock will regenerate naturally over most of unit, but will likely become infected with mistletoe from surrounding stands.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides and bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention as recruitment trees. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by a temporary spur off road 7565. The temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**For visuals -** Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for running skyline. Require directional fell and yard away from v-notch. Require partial suspension for entire unit; Full suspension for settings 1 and 2.

**Unit Boundary:** Make limited adjustments to soften the straight-edge effect of the boundaries. Ensure west boundary avoids a series of notches located towards the center of that boundary.

**Streamside Management:** No concerns. Split yard v-notch within unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial/full suspension in unit. Split yard v-notch. Close, waterbar, and grass-seed temporary road post-harvest.

**Fuel Treatment:** None prescribed.

**Planting:** Plant cedar 20 x 20 ft. spacing over entire unit.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for thinning 14-16 years following harvest. Base thinning needs on results of PCT exam.

**Commercial Thinning:** Possibility of commercial thinning as site is productive. Evaluate using stand exam 55-60 years after harvest.

**Final Harvest:** Evaluate for harvest in 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant unit with cedar, 20 x 20 ft. spacing following harvest	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural regen. during 3 year exam	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1050 of the SE Chichagof Timber Sale

STAND #109,111,115

VCU 236

MANAGEMENT AREA C37

ACRES 56 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 42B Photo #'s 2284-90

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 520 to 1440 ft. Aspect: NE Slope: 20 to 55 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 89

Plant Association: Western hemlock/blueberry & western hemlock/blueberry-devil's club.

Soil: SMU = 3257D

Parent Material: Colluvium/residuum/ablation till.

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam to loam.

Potential of Mass Failure: Low to moderate.

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru of area done) Date 07/17/90

Stand History: \_\_\_\_\_

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Light to moderate pini, pinicola, frost cracks and mistletoe.

Some crooks and breakage.

Species Composition (trees 5+" DBH): 60 %WH 25 %MH 0 %AC 15 %SS

Stand Structure: 60%-85% canopy cover. Younger trees near clearcut. Uneven aged stand of hemlock and spruce.

Ave. Height: 60-110ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): \_\_\_\_\_

Ground Cover: 60%-70% blueberry; 10%-20% devil's club.

Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 2115 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals - Make limited adjustments to soften southern boundary's visual effect.

Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fall trees away from v-notch.

Fisheries, Hydrology, Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand exam information and presence of mistletoe in overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit; spruce will be a minor component in the new stand, confined to areas where adequate soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Road existing. Construct landing for helicopter logging.

**Logging System:** Designed for helicopter. Recommended landing is located northeastward off of road 7540. Require directional felling away from v-notches. Northern boundary is existing clearcut.

**Unit Boundary:** Soften southern boundary. Northern boundary is existing clearcut. Avoid extreme mass wasting hazard areas.

**Streamside Management:** No concerns. Class III stream located on west side of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Helicopter yarding will minimize soil disturbance. Close, provide for drainage, and grass-seed helicopter landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Schedule PCT exam 14-16 years after harvest. Base need for PCT on results of exam.

**Commercial Thinning:** Possibility to consider commercial thinning since site quality is high; economics of helicopter thinning need to be considered.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years following harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1051 of the SE Chichagof Timber Sale

STAND # 109,119

VCU 236

MANAGEMENT AREA C37

ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 42B Photo #'s 2284-90

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 500 to 1150 ft. Aspect: NE to Slope: 20 to 55 %

Landform: Smooth frequently dissected mountainslopes/mountainslopes with mass wasting and avalanches.

Slope Configuration: Convex Site Index (Farr): 80

Plant Association: Western hemlock/blueberry/shield fern and western hemlock/blueberry.

Soil: SMU = 3257D, 3006E.

Parent Material: Colluvium/residuum

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam to gravelly loam.

Potential of Mass Failure: Moderate to high.

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru of area done) Date 07/17/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Light to moderate pini, pinicola, frost cracks and mistletoe. Some crooks and breakage.

Species Composition (trees 5+" DBH): 60 %WH 25 %MH 0 %AC 15 %SS

Stand Structure: 60%-85% canopy cover. Younger trees near clearcut.

Uneven aged stand of hemlock and spruce.

Ave. Height: 60-110ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-70% blueberry; 10%-20% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1559 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals - Make limited adjustments to soften eastern boundary's visual effect.

Soils - Ensure backline is below area of extreme mass movement hazard as shown on photo. Fall trees away from v-notches.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

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Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and presence of mistletoe preclude partial cut. Clearcut with reserve trees will minimize the adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over the unit; spruce will likely be a minor component in the new stand due to lack of soil disturbance sufficient to expose mineral soil.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Construct landing for helicopter logging.

**Logging System:** Designed for helicopter. Recommended landing is located northward off of road 7540. Require directional felling away from v-notches. Northern boundary is at the existing clearcut.

**Unit Boundary:** Soften eastern boundary. Northern boundary is at the existing clearcut. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Protect v-notches during falling operation.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1090 of the SE Chichagof Timber Sale

STAND # 55

VCU 236

MANAGEMENT AREA C37

ACRES 24 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 42B Photo #'s 2284-93

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 400 to 950 ft. Aspect: SW Slope: 15 to 65 %

Landform: Broken mountainslopes and hillsides.

Slope Configuration: Convex Site Index (Farr): 94

Plant Association: Western hemlock/blueberry-devil's club.

Soil: SMU = 3623D

Parent Material: Colluvium/residuum

Soil Depth:(cm) 150 Soil Texture: Silt loam

Potential of Mass Failure: Moderate to high.

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru of area done) Date 07/16/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate to high.

Damaging Agents: Moderate to heavy frost cracks and conks; light to moderate forks and broken tops; pistol butts in larger trees. Old blowdown across area.

Species Composition (trees 5+" DBH): 60-80 %WH 20-40 %MH 0 %AC 5 %SS

Stand Structure: 65%-90% canopy closure. Light understory in places. One area has old and new blowdown, Uneven aged hemlock, with small % of spruce and alder.

Ave. Height: 80-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 70%-90% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 944 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals - Blend boundaries with topographic features and natural openings.

Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown on photo.

Fisheries, Hydrology, Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of blowdown precludes option of partial cut. Clearcut with reserve trees will minimize the adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over the unit; spruce will likely be a minor stand component, limited to areas of sufficient soil disturbance to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Construct landing for helicopter logging near existing road.

**Logging System:** Designed for helicopter. Recommended landing is located southward off of road 7540. Require directional felling away from v-notches. Western boundary is located at the existing clearcut.

**Unit Boundary:** Blend boundaries with topo. & natural openings. Western boundary is located at the existing clearcut. Avoid extreme hazard soils.

**Streamside Management:** No concerns.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs for PCT on results of PCT exam.

**Commercial Thinning:** Possible option due to high site quality; consider economics of helicopter thinning when evaluating for commercial thinning.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; based on results of PCT exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1091 of the SE Chichagof Timber Sale

STAND # 55, 70

VCU 236

MANAGEMENT AREA C37

ACRES 84 Determined How: GIS By Whom: T. Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 42B Photo #'s 2284-93

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 450 to 1500 ft. Aspect: SW Slope: 15 to 65 %

Landform: Smooth frequently dissected mtslopes/broken mountain and hill slopes.

Slope Configuration: Convex Site Index (Farr): 94

Plant Association: Western hemlock/blueberry/shield fern and western hemlock/blueberry/devil's club.

Soil: SMU = 3225E, 3623D

Parent Material: Colluvium/residuum

Soil Depth: (cm) 33-40&150 Soil Texture: Silt loam/gravelly silt loam.

Potential of Mass Failure: Moderate to high.

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru of area done) Date 07/16/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate to high.

Damaging Agents: Light to moderate incidence of forks and broken tops. Moderate to high incidence of frost cracks and conks. Pistol butts common in larger trees. Blowdown found across the area (both old and recent windthrow).

Species Composition (trees 5+\" DBH): 60-80 %WH 20-40 %MH 0 %AC 5 %SS

Stand Structure: 65%-90% canopy closure. Light understory in places. Uneven aged stand of hemlock with minor amounts of spruce.

Ave. Height: 80-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH):

Ground Cover: 70%-90% blueberry; 5-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 3292 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure backline is below area of extreme mass movement hazard as shown on photo. Fall trees away from v-notches. Remove any slash or debris introduced into the two deep v-notches in the south part of the unit.

Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and decadence of overstory preclude option of partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of unit; spruce will likely be a minor component due to lack of seed sources and necessary soil disturbance to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Construct landing for helicopter logging near existing road.

**Logging System:** Designed for helicopter. Recommended landing is located westward off of road 7540. Require directional felling away from v-notches. Western boundary is located at the existing clearcut.

**Unit Boundary:** Western boundary is located along existing clearcut.

Avoid extreme hazard soils.

**Streamside Management:** No concerns.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity.

Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landings.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years following harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option exists for CT due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on results of exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 1110 of the SE Chichagof Timber Sale

STAND #70,84,86,87

VCU 236

MANAGEMENT AREA C37

ACRES 48 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 42B Photo #'s 2284-91

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 750 to 1750 ft. Aspect: SW Slope: 80 to 100+%

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 91

Plant Association: Western hemlock/blueberry/shield fern and western hemlock/blueberry/devil's club.

Soil: SMU = 3225E

Parent Material: Colluvium/residuum

Soil Depth:(cm) 40 & 150 Soil Texture: Gravelly silt loam/silt loam

Potential of Mass Failure: Moderate to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/18/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: None noted during aerial recon.

Species Composition (trees 5+" DBH): 70 %WH 0 %MH 0 %AC 30 %SS

Stand Structure: 85%-95% canopy closure. Uneven aged hemlock stand with minor amounts of spruce.

Ave. Height: 100-110 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 65% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1811 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils, and contains many v-notches. Fall trees away from v-notches and remove any slash or debris introduced into them.

Fisheries, Hydrology, Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate the stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information precludes partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of unit; spruce will be a minor component, confined primarily to areas of sufficient soil disturbance to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Construct landing for helicopter logging near existing road.

**Logging System:** Designed for helicopter. Recommended landing is located northwestward off of road 7540. Require directional felling away from v-notches. Western boundary is located at the existing clearcut.

**Unit Boundary:** Western boundary is located at the existing clearcut.

**Streamside Management:** No concerns. Protect v-notches within unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landings.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on PCT exam results.

**Commercial Thinning:** Option for CT due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

UNIT # 1120 of the SE Chichagof Timber Sale

STAND #123,125,131 VCU 236 MANAGEMENT AREA C37

ACRES 40 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 43 Photo #'s 284-189

Scale: 1:12000

1/4 Quad ID: SITC4NE

**SITE CHARACTERISTICS:**

Elevation: 600 to 1250 ft. Aspect: SW Slope: 50 to 100 %

Landform: Smooth infrequently dissected mountainslopes/mountainslope ravines.

Slope Configuration: Convex Site Index (Farr): 90

Plant Association: Western hemlock/blueberry and western hemlock/blueberry/  
devil's club.

Soil: SMU = 3525E, 3779E

Parent Material: Colluvium/residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Silt/sandy loam/gravelly silt loam.

Potential of Mass Failure: Moderate

**STAND CHARACTERISTICS:**

Stand Examination: Type None (Aerial recon of stand done) Date 07/18/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate to high

Damaging Agents: None seen during recon.

Species Composition (trees 5+" DBH): 70 %WH %MH %AC 30 %SS

Stand Structure: 80%-90% canopy closure. Uneven aged stand of hemlock with  
minor amounts of spruce. Spruce found primarily along streams.

Ave. Height: 90-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 35%-80% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1915 MBF

Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Unit has mostly high hazard soils. Ensure boundary avoids area of ex-  
treame mass movement as shown on photo.

Visuals - Blend backline with topographic features and natural openings.

Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will provide sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream along SW unit boundary.

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**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of windthrow preclude option of partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock will likely regenerate over most of unit, with spruce regenerating in minor amounts in areas of soil disturbance sufficient to expose mineral soil, as well as in more favorable microsites (such as near streams).

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Road existing / construct landing west of Rd.#7540 for helicopter logging.

**Logging System:** Designed for helicopter. Recommended landing is located westward off of road 7540. Require directional felling away from v-notches. Western boundary is located at the existing clearcut.

**Unit Boundary:** Blend backline with topography and natural openings. Western boundary is located at the existing clearcut. SW boundary located along Class III stream. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Lower portion of SW boundary includes Class III stream within unit and adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches and Class III stream. Helicopter yarding will minimize soil disturbance.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base need for PCT on results of exam.

**Commercial Thinning:** Option exists due to high site quality; consider economics of helicopter thinning in evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years following harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT Exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1121 of the SE Chichagof Timber Sale

STAND # 123, 125

VCU 236

MANAGEMENT AREA C37

ACRES 17 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 43 Photo #'s 284-189

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 1200 to 1820 ft. Aspect: SW Slope: 50 to 100 %

Landform: Smooth, infrequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 95

Plant Association: Western hemlock/blueberry.

Soil: SMU = 3525E

Parent Material: Colluvium/residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam/gravelly silt loam

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/18/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: None detected during recon.

Species Composition (trees 5+\" DBH): 70 %WH %MH %AC 30 %SS

Stand Structure: 80%-90% canopy closure. Uneven aged stand of hemlock and spruce.

Ave. Height: 90-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH):

Ground Cover: 35%-80% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 559 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement as shown on photo.

Fisheries, Wildlife, Hydrology - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of windthrow preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of the unit. Spruce will successfully regenerate where soil disturbance sufficient to expose mineral soil occurs.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Road existing. Construct landing west of Rd.#7540 for helicopter logging.

**Logging System:** Designed for helicopter. Recommended landing is located southward off of road 7540.

**Unit Boundary:** Layout boundaries for windfirmness. Avoid extreme hazard soils.

**Streamside Management:** No concerns.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landings.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option for commercial thinning due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92

UNIT # 1130 of the SE Chichagof Timber Sale

STAND # 123, VCU 236 MANAGEMENT AREA C37

ACRES 31 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 43 Photo #'s 284-189

Scale: 1:12000

1/4 Quad ID: SITC4NE

**SITE CHARACTERISTICS:**

Elevation: 720 to 1450 ft. Aspect: SW to NW Slope: to 100+ %

Landform: Smooth infrequently dissected mountainslopes / mountainslope ravines.

Slope Configuration: Convex Site Index (Farr): 90

Plant Association: Western hemlock/blueberry and western hemlock/blueberry/  
devil's club.

Soil: SMU = 3525E, 3779E.

Parent Material: Colluvium / residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Silt to sandy loam to gravelly silt loam

Potential of Mass Failure: Moderate to high

**STAND CHARACTERISTICS:**

Stand Examination: Type None (Aerial recon of stand done) Date 07/18/90

Stand History: Wind/slide processes appear to be major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: None detected during recon.

Species Composition (trees 5+" DBH): 70 %WH %MH %AC 30 %SS

Stand Structure: 75%-90% canopy closure. Uneven aged stand of hemlock and  
spruce.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 35%-80% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1204 MBF

Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Wildlife - High quality (HSI=1.0) brown bear habitat is located to the south.

Avoid expansion in this area upon verifying mapped high rating.

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of ex-  
trême mass movement hazard as shown on photo. Fall trees away from v-notches  
and remove any slash or debris introduced into them.

Visuals - Blend boundaries with topographic features and natural openings.

Fisheries, Hydrology - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of windthrow preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's Letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit. Spruce will regenerate where adequate soil disturbance occurs to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Existing road. Construct landing for helicopter logging.

**Logging System:** Designed for helicopter. Recommended landing is located northwestward off of road 7540. Require directional felling away from v-notches. Western boundary is located at the existing clearcut.

**Unit Boundary:** Western boundary is located along existing clearcut. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Directionally fall away from v-notches.

**Wildlife Management:** Avoid expansion into the high quality brown bear habitat to the S of the unit upon verification of the mapped high quality rating.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option exists for commercial thinning due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



**INTEGRATED SILVICULTURE PRESCRIPTION**

Page 1 of 3

**UNIT # 1140 of the SE Chichagof Timber Sale**

**STAND # 407**

**VCU 239**

**MANAGEMENT AREA C37**

**ACRES 8 Determined How: GIS By Whom: T.Falkner Date: 1991**

**Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-173**

**Scale: 1:12000**

**1/4 Quad ID: SITC4NE**

**SITE CHARACTERISTICS:**

**Elevation: 650 to 1200 ft. Aspect: SW Slope: 80 to 100 %**

**Landform: Smooth, frequently dissected mountainslopes.**

**Slope Configuration: Convex Site Index (Farr): 65**

**Plant Association: Western hemlock/blueberry.**

**Soil: SMU = 3149E**

**Parent Material: Colluvium/residuum**

**Soil Depth: (cm) 25-40 Soil Texture: Silt loam to gravelly loam.**

**Potential of Mass Failure: Moderate**

**STAND CHARACTERISTICS:**

**Stand Examination: Type None (Aerial recon of area done) Date 07/18/90**

**Stand History: Wind/slide processes appear to be major stand processes**

**Potential Windthrow Hazard: Moderate**

**Damaging Agents: None detected during recon.**

**Species Composition (trees 5+\" DBH): 70 %WH %MH %AC 30 %SS**

**Stand Structure: 75%-90% canopy closure. Uneven aged hemlock/spruce stand.**

**Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.**

**Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH):**

**Ground Cover: 80% blueberry.**

**Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 317 MBF**

**Volume by Species: H MBF AC MBF SS MBF**

**SUMMARY OF OTHER RESOURCES AND VALUES:**

**Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo.**

**Fisheries, Hydrology, Wildlife - No concerns.**

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II stream adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and the likelihood of blowdown preclude partial cut as an option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Existing road. Construct landing for helicopter logging near existing road.

**Logging System:** Designed for helicopter. Recommended landing is located southward off of road 7540. Require directional felling away from v-notches.

**Unit Boundary:** Incorporate TTRA buffer on Class II stream into unit layout. Layout boundary for windfirmness. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Protect v-notches and Class II stream.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches and Class II stream.

Helicopter yarding will minimize soil disturbance. Close, drain, and seed ldgs.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT #1141 of the SE Chichagof Timber Sale

STAND #156,166,238, VCU 239 MANAGEMENT AREA C37  
407, 411

ACRES 32 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-173  
Scale: 1:12000  
1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 700 to 1600 ft. Aspect: S to SW Slope: 80 to 100 %  
Landform: Smooth frequently and infrequently dissected mountainslopes.  
Slope Configuration: Convex Site Index (Farr): 67  
Plant Association: Western hemlock/blueberry and western hemlock/blueberry/  
devil's club.  
Soil: SMU = 3549E, 3149E  
Parent Material: Colluvium/residuum  
Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam.  
Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/18/90  
Stand History: Wind/slide processes appear to be the major stand processes  
Potential Windthrow Hazard: Moderate  
Damaging Agents: None detected during recon.

Species Composition (trees 5+\" DBH): 70 %WH %MH %AC 30 %SS  
Stand Structure: 75%-90% canopy closure. Uneven aged hemlock/spruce stand.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH):   
Ground Cover: 80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1083 MBF  
Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of ex-  
treme mass movement hazard as shown on photo.  
Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream within unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and need to encourage spruce regeneration preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Existing road. Construct landing for helicopter logging near road.

**Logging System:** Designed for helicopter. Recommended landing is located southwestward off of road 7540. Require directional felling away from v-notches.

**Unit Boundary:** Area of extreme hazard soils located within unit; review, and if determined to be ext. haz., leave as a no harvest area. Provide for windfirm boundary. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Class III stream located within unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches/Class III stream. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed ldg(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1150 of the SE Chichagof Timber Sale

STAND #237-241,410,412 VCU 239

MANAGEMENT AREA C37

ACRES 31 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-173

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 580 to 1750 ft. Aspect: SE Slope:      to      %

Landform: Smooth, frequently dissected mountainslopes / mountainslope ravines.

Slope Configuration: Convex Site Index (Farr): 79

Plant Association: Western hemlock/blueberry.

Soil: SMU = 3151D, 3779E, 3149E

Parent Material: Colluvium/residuum

Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam / sandy loam.

Potential of Mass Failure: Moderate to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/18/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: None detected during recon

Species Composition (trees 5+" DBH): 60-80 %WH 20-40 %MH      %AC 20 %SS

Stand Structure: 75%-80% canopy closure. Uneven aged hemlock stand with small amount of spruce.

Ave. Height: 50-70 ft. Basal Area:      sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH):      in. Ave. TPA (trees 5+" DBH):     

Ground Cover: 40%-80% blueberry.

Total Net Sawlog Vol/Acre:      MBF Total Unit Vol: 1081 MBF

Volume by Species: H      MBF AC      MBF SS      MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals - Make limited adjustments to soften side boundaries.

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of mass movement hazard, fall away from v-notches along SE and W boundaries.

Hydrology - Protect v-notch on W side, concern due to blowdown potential. If notch incision is > 50 ft., trees < 2/3 of length within notch may be felled away from channel and yarded out. BMP 13.16.

Fisheries, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III channels adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and provide for establishment and growth of desirable shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Existing road. Need to construct landing for helicopter logging near road.

**Logging System:** Designed for helicopter. Recommended landing is located southwestward off of road 7520. Require directional felling away from v-notches. Southern boundary is existing clearcut.

**Unit Boundary:** Make limited adjustment to soften straight-edge effect of side boundaries. Southern boundary is existing clearcut. Locate boundaries above slope break along v-notches. Avoid extreme hazard soils.

**Streamside Management:** Channel protection of the v-notch on west side of unit is a concern due to blowdown potential. Objective: streambank stability and protection from blowdown and subsequent landsliding. BMP 13.16

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor v-notch on west side of unit for ravelling		Hydrology

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1160 of the SE Chichagof Timber Sale

STAND # 233

VCU 239

MANAGEMENT AREA C37

ACRES 7 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-131

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 650 to 1200 ft. Aspect: S Slope: 75 to 140 %

Landform: Smooth, frequently dissected mountainslopes and mountainslope ravines.

Slope Configuration: Convex Site Index (Farr): 74

Plant Association: Western hemlock/blueberry/devil's club and western hemlock/blueberry/shield fern.

Soil: SMU = 3779E, 3225E

Parent Material: Colluvium / residuum

Soil Depth: (cm) 25-40&150 Soil Texture: Silt and sandy loam / gravelly silt loam

Potential of Mass Failure: Moderate to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/18/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate to high

Damaging Agents: None detected during recon

Species Composition (trees 5+" DBH): %WH %MH %AC %SS

Stand Structure: Uneven aged hemlock stand with minor component of spruce.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 35%-50% blueberry; 5%-15% Devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 266 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo.

Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Existing road. Construct helicopter logging landing near Rd. #7520.

**Logging System:** Designed for helicopter. Recommended landing is located southward off of road 7520. Require directional felling away from v-notches. Southern boundary is existing clearcut.

**Unit Boundary:** Southern boundary is existing clearcut. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Class III streams located adjacent to unit. Require directional felling along v-notches.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Require directional felling along v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 1161 of the SE Chichagof Timber SaleSTAND # 233VCU 239MANAGEMENT AREA C37ACRES 6 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-131

Scale: 1:12000

1/4 Quad ID: SITC3NW**SITE CHARACTERISTICS:**Elevation: 820 to 1350 ft. Aspect: S Slope: 75 to 140 %Landform: Smooth, frequently dissected mountainslopes.Slope Configuration: Convex Site Index (Farr): 94Plant Association: Western hemlock/blueberry/devil's club and western hemlock/blueberry/shield fern.Soil: SMU: 3225EParent Material: Colluvium /residuumSoil Depth: (cm) 40 & 150 Soil Texture: Silt loam / gravelly silt loam.Potential of Mass Failure: Moderate**STAND CHARACTERISTICS:**Stand Examination: Type None (Aerial recon of area done) Date 07/18/90Stand History: Wind/slide processes appear to be the major stand processesPotential Windthrow Hazard: ModerateDamaging Agents: None detected during reconSpecies Composition (trees 5+" DBH): %WH %MH %AC %SSStand Structure: Uneven aged hemlock with small amount of spruce.Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 65% blueberry; 5%-15% devil's club.Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 226 MBFVolume by Species: H MBF AC MBF SS MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo.Fisheries - No concerns. Hydrology - Maintain unit boundary to slope break of C.III v-notch on east side of unit; BMP 13.16.Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream along east boundary.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Existing road. Construct landing for helicopter logging near road 7520.

**Logging System:** Designed for helicopter. Recommended landing is located southwestward off of road 7520. Require directional felling away from v-notch. Existing clearcut is the southern boundary.

**Unit Boundary:** Avoid extreme hazard soils. Existing clearcut is the southern boundary. Maintain unit bdry to slope break of CIII v-notch on east side of unit  
**Streamside Management:** No concerns. Class III stream v-notch is located along unit boundary on east side of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on PCT exam results.

**Commercial Thinning:** Option exists due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: \_\_\_\_\_

*William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTIONPage 1 of 3UNIT # 1162 of the SE Chichagof Timber SaleSTAND # 233 VCU 239 MANAGEMENT AREA C37ACRES 28 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-131Scale: 1:120001/4 Quad ID: SITC3NWSITE CHARACTERISTICS:Elevation: 380 to 1000 ft. Aspect: S to SE Slope: 35 to 140 %Landform: Infreq. dissected ftslopes/mountainslopes with mass wasting-avalanches.Slope Configuration: Convex Site Index (Farr): 95Plant Association: Western hemlock/blueberry/devil's club and western hemlock/blueberry/shield fern.Soil: SMU = 5121B, 3002EParent Material: Colluvium / residuumSoil Depth: (cm) 150 Soil Texture: Gravelly silt loam / sandy loam.Potential of Mass Failure: Low to moderateSTAND CHARACTERISTICS:Stand Examination: Type None (Aerial recon of area done) Date 07/18/90Stand History: Wind/slide processes appear to be the major stand processesPotential Windthrow Hazard: ModerateDamaging Agents: None detected during reconSpecies Composition (trees 5+" DBH): %WH %MH %AC %SSStand Structure: Uneven aged hemlock with minor spruce componentAve. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 30%-65% blueberry; 5%-15% devil's club.Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1138 MBFVolume by Species: H MBF AC MBF SS MBFSUMMARY OF OTHER RESOURCES AND VALUES:Wildlife - Mapped as high quality deer and brown bear habitat to the south.Avoid expansion of the unit into this area upon verification of high rating.Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo.Visuals - Make limited adjustments to soften southern boundary.Fisheries, Hydrology - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II and III streams within and adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Construct landing for helicopter logging near road 7520.

**Logging System:** Designed for helicopter. Recommended landing is located southward off of road 7520. Require directional felling away from v-notch. Southwest boundary is located at the existing clearcut.

**Unit Boundary:** Soften straight-edge effect of southern boundary. Southwest boundary is located at the existing clearcut. Avoid extreme hazard soils.  
**Streamside Management:** No concerns. Directional felling away from v-notch. Class III stream located within east side of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option exists due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1200 of the SE Chichagof Timber Sale

STAND #250,252,256

VCU 239

MANAGEMENT AREA C37

ACRES 23 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 46 Photo #'s 284-48

Scale: 1:12000

1/4 Quad ID: SITC3NW

SITE CHARACTERISTICS:

Elevation: 1400 to 1900 ft. Aspect: SE Slope: 30 to 55+ %

Landform: Broken mtslopes & hillslopes/mtslopes with mass wasting & avalanching.

Slope Configuration: Convex Site Index (Farr): 71

Plant Association: Mountain hemlock/blueberry and western hemlock/blueberry/  
devil's club.

Soil: SMU = 3636C, 3002E

Parent Material: Colluvium / residuum

Soil Depth: (cm) 33 & 150 Soil Texture: Silt loam.

Potential of Mass Failure: Low to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru of area done) Date 07/18/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate to high

Damaging Agents: Some forked tops, crooks and pistol butting. Areas of high  
defect. Blowdown scattered throughout area.

Species Composition (trees 5+" DBH): %WH 80-90 %MH %AC 5-15 %SS

Stand Structure: 60%-70% canopy closure; Not much understory. Uneven aged  
hemlock stand with minor amounts of spruce.

Ave. Height: 50-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 30%-40% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 639 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown on  
photo. Fall trees away from v-notches and remove any slash or debris introduced  
into them.

Visuals - Blend boundaries with topographic features and natural openings.

Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. General decadence of overstory and likelihood of blowdown preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of the unit. Spruce will likely be a minor component in new stand, restricted to areas where sufficient soil disturbance exposes mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Construct landing for helicopter logging near road 7520.

**Logging System:** Designed for helicopter. Recommended landing is located southwestward off of road 7520. Require directional felling away from v-notches.

**Unit Boundary:** Blend with topographic features and natural openings. Provide for windfirmness. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Directional felling away from v-notches.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Require directional felling away from v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed ldg(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

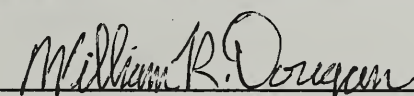
**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92

UNIT # 1210 of the SE Chichagof Timber Sale

STAND #30,49,120 VCU 239 MANAGEMENT AREA C37

ACRES 109 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-171

Scale: 1:12000

1/4 Quad ID: SITC4NE

**SITE CHARACTERISTICS:**

Elevation: 400 to 1300 ft. Aspect: SE Slope: 45 to 70 %

Landform: Smooth, infrequently dissected mountainslopes/broken mountainslopes.

Slope Configuration: Convex Site Index (Farr): 91

Plant Association: Western hemlock/blueberry and western hemlock/blueberry/shield fern.

Soil: SMU = 3525D, 3649E, 3621D

Parent Material: Colluvium / residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam / gravelly silt loam.

Potential of Mass Failure: Low

**STAND CHARACTERISTICS:**

Stand Examination: Type None (Aerial recon of area done) Date 07/16/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate to high

Damaging Agents: Some dead tops/dying trees. Areas of scattered blowdown and high defect.

Species Composition (trees 5+" DBH): 85 %WH %MH %AC 15 %SS

Stand Structure: 70%-90% canopy closure. Understory sparse. Uneven aged hemlock stand with minor amounts of spruce.

Ave. Height: 80-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 3612 MBF

Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fall trees away from the many v-notches that are present.

Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and overall decadence of overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over entire unit; spruce will likely be a minor component in stand, confined to areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Construct landing near existing road 7542.

**Logging System:** Designed for helicopter. Recommended landing is located southward off of road 7542. Require directional felling away from v-notches.

**Unit Boundary:** Layout boundary for windfirmness. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Class III stream adjacent to unit on west side.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option exists based on high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

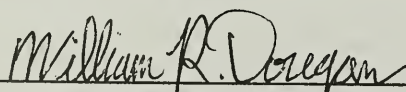
**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:



Certified Silviculturist

Date: 08 /01 /92



**INTEGRATED SILVICULTURE PRESCRIPTION**

Page 1 of 3

**UNIT # 1220** of the **SE Chichagof** **Timber Sale**

**STAND #30,39,40**

**VCU 239**

**MANAGEMENT AREA C37**

**ACRES 26** Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 43C Photo #'s 2284-107

Scale: 1:12000

1/4 Quad ID: SITC4NE

**SITE CHARACTERISTICS:**

Elevation: 1180 to 1450 ft. Aspect: S to SE Slope: 20 to 40 %

Landform: Gently sloping lowlands and mountainslopes with mass wasting-avalanches

Slope Configuration: Convex Site Index (Farr): 40

Plant Association: Sitka spruce/blueberry, western hemlock/blueberry-devil's club and mixed conifer/blueberry/deer cabbage.

Soil: SMU = 6174B, 3002E

Parent Material: Colluvium/ablation till

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam and silt loam.

Potential of Mass Failure: Low to high

**STAND CHARACTERISTICS:**

Stand Examination: Type None (Aerial recon of area done) Date 07/16/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate to high

Damaging Agents: None noted during recon.

Species Composition (trees 5+" DBH): 40-60%WH %MH %AC 40-60%SS

Stand Structure: 50% canopy closure. Uneven aged stand of spruce and hemlock.

Appears to be a high volume stand, generally good form.

Ave. Height: 120 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-80% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 935 MBF

Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Fall trees away from stream along south boundary.

Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor stand component, although adequate seed sources exist, unless sufficient soil disturbance occurs to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Construct landing near road 7542.

**Logging System:** Designed for helicopter. Recommended landing is located southeastward off of road 754221; provided, there is enough room to facilitate operations. Otherwise, a longer flight to a landing further eastward on the road would be necessary. Fall trees away from stream on S side.

**Unit Boundary:** Provide for windfirm boundary. Class III stream located along SW boundary of unit.

**Streamside Management:** No concerns. Directional felling along Class III stream.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along Class III stream. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1230 of the SE Chichagof Timber Sale

STAND # 27

VCU 239

MANAGEMENT AREA C37

ACRES 9 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 43 Photo #'s 2284-108

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 420 to 1200 ft. Aspect: NE Slope: 70 to 90 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 85

Plant Association: Western hemlock/blueberry/shield fern and western hemlock/blueberry/devil's club.

Soil: SMU = 3225E

Parent Material: Colluvium / residuum.

Soil Depth: (cm) 40 & 150 Soil Texture: Gravelly silt loam / silt loam.

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/16/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: Many dead tops seen.

Species Composition (trees 5+" DBH): %WH %MH %AC %SS

Stand Structure: 80%-90% canopy closure. Uneven aged hemlock stand. Numerous v-notches across the stand.

Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-70% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 365 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown on photo.

Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and decadence of overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow/disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over the unit. In areas of sufficient soil disturbance to expose mineral soil, spruce may regenerate in minor amounts.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Construct landing for helicopter logging near road 75422.

**Logging System:** Designed for helicopter. Recommended landing located on road 75422, provided is enough room; otherwise, longer flight east to landing on road 7542. Directional fell away from v-notches. Boundaries are at existing units at north and east sides.

**Unit Boundary:** Boundaries are on existing units at north and east sides. Provide windfirm boundary. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Directional felling along v-notches.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option due to high site quality; consider economics of helicopter thinning in evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:   
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1240 of the SE Chichagof Timber Sale

STAND # 16, 63

VCU 239

MANAGEMENT AREA C37

ACRES 30 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 43 Photo #'s 2284-108

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 450 to 1400 ft. Aspect: NE Slope: 70+ %

Landform: Smooth frequent dissected mtslopes/mtslopes with mass wasting-avalanche

Slope Configuration: Convex Site Index (Farr): 88

Plant Association: Western hemlock/blueberry/devil's club and western hemlock/blueberry/shield fern.

Soil: SMU = 3225E, 3002E.

Parent Material: Colluvium / residuum.

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam / gravelly silt loam.

Potential of Mass Failure: Moderate to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/16/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: Dead tops common.

Species Composition (trees 5+" DBH): %WH %MH %AC %SS

Stand Structure: 65% canopy closure. Snags are numerous and scattered through area. Uneven aged hemlock stand.

Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 35%-65% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1192 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fall trees away from v-notch along north boundary.

Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and general decadence of overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow/disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Construct helicopter landing near road 75422.

**Logging System:** Designed for helicopter. Recommended landing eastward on road 75422, provided enough room; otherwise, longer flight northeast to landing on road 7542. Require directional fell away from v-notches.

**Unit Boundary:** Provide windfirm boundary. Class III and II channels located along N-NW boundary. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Incorporate TTRA buffer for Class II channel into boundary layout. Class III channel along N-NW boundary. Directional felling along v-notches.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s)

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*

Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1260 of the SE Chichagof Timber Sale

STAND # 78, 114

VCU 239

MANAGEMENT AREA C37

ACRES 25 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-171

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 380 to 820 ft. Aspect: NE to E Slope: 55 + %

Landform: Smooth, frequently & infrequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 63

Plant Association: Western hemlock/blueberry.

Soil: SMU = 3149E, 3549E.

Parent Material: Colluvium / residuum.

Soil Depth: (cm) 25-40 Soil Texture: Silt loam and gravelly loam.

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (Aerial recon of area done) Date 07/16/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: None detected during recon

Species Composition (trees 5+" DBH): 90 % H % %AC 10 %SS

Stand Structure: 75% canopy closure. Uneven aged hemlock with minor amounts of spruce.

Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 950 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals - Blend boundaries with topographic features and natural openings.

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fall trees away from v-notch in the center of the unit & remove any slash or debris that is introduced into it.

Hydrology - Maintain unit boundary to slope break of C.III v-notch on south side of unit. BMP 13.16.

Fisheries, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III channels within and adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Construct helicopter landing near road 7543.

**Logging System:** Designed for helicopter. Recommended landing is located southeast on road 7543. Require directional felling away from v-notches and Class II stream buffer. East boundary is at existing clearcut.

**Unit Boundary:** Blend Boundary with topog. and natural openings. East boundary is existing clearcut. Maintain unit boundary to slope break of C.III v-notch on south side of unit. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Class III channels within and adjacent to unit; unit boundary meets Class II TTRA buffers on east side of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Require directional felling along Class II/III streams. Helicopter yarding will minimize soil disturbance. Close, drain, & grass-seed ldgs.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffers for windfirmness, effectiveness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 1270 of the SE Chichagof Timber Sale

STAND #78-80,82,437 VCU 239 MANAGEMENT AREA C37

ACRES 87 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-169  
Scale: 1:12000  
1/4 Quad ID: SITC4NE

**SITE CHARACTERISTICS:**

Elevation: 380 to 1600 ft. Aspect: E to SE Slope: 40 to 100 %  
Landform: Smooth frequently dissected mountainslopes/oversteep subalpine mtslopes  
Slope Configuration: Convex Site Index (Farr): 63  
Plant Association: Western hemlock/blueberry and mountain hemlock/blueberry/copperbush.  
Soil: SMU = 3249E, 3149E, 3037E.  
Parent Material: Colluvium / residuum.  
Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam  
Potential of Mass Failure: Moderate

**STAND CHARACTERISTICS:**

Stand Examination: Type None (Recon from rd. below stands) Date 07/18/90  
Stand History: Wind/slide processes appear to be the major stand processes  
Potential Windthrow Hazard: Moderate  
Damaging Agents: None detected during recon

Species Composition (trees 5+" DBH): %WH %MH %AC %SS  
Stand Structure: 70% canopy closure. Uneven aged stand of hemlock.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):   
Ground Cover: 70-80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 3263 MBF  
Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fall trees away from v-notches and remove any slash or debris introduced to them.  
Visuals - Blend boundaries with topographic features and natural openings.  
Wildlife - Mapped as high quality (HSI=1.0) brown bear habitat to east. Avoid expansion of unit into this area upon verification of high quality rating.  
Fisheries and hydrology have no concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II/III streams within and adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of blowdown preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



Transportation System: Construct helicopter landing near road 7543.

Logging System: Designed for helicopter. Recommended landing is located northeastward off of road 7543. Require directional felling away from v-notches

Unit Boundary: Blend with topo. features and natural openings. Class III channel adjacent to south boundary. Avoid extreme hazard soils.

Streamside Management: No concerns. Class III streams within and adjacent to unit. Class II TTRA buffer adjacent to unit in NE corner.

Wildlife Management: High quality brown bear habitat east of unit. Avoid expansion into this area upon verification of high quality rating.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

Erosion Control: Directional felling along v-notches and Class II/III streams. Helicopter yarding will minimize soil disturbance. Close, drain, and seed ldgs.

Fuel Treatment: None prescribed.

Planting: None prescribed.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTIONPage 1 of 3UNIT # 1290 of the SE Chichagof Timber SaleSTAND #94,98,105VCU 239MANAGEMENT AREA C37ACRES 21 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-134Scale: 1:120001/4 Quad ID: SITC3NWSITE CHARACTERISTICS:Elevation: 700 to 1450 ft. Aspect: W to NW Slope: 65 to 120 %Landform: Smooth frequent dissected mtslopes/mtslopes with mass wasting-avalancheSlope Configuration: Convex Site Index (Farr): 82Plant Association: Western hemlock/blueberry/devil's club and western hemlock/  
blueberry/shield fern.Soil: SMU = 3225E, 3002EParent Material: Colluvium / residuumSoil Depth: (cm) 40 & 150 Soil Texture: Gravelly silt loam/silt loam/sandy loam.Potential of Mass Failure: Moderate to highSTAND CHARACTERISTICS:Stand Examination: Type None (Recon of area from rd. done) Date 07/18/90Stand History: Wind/slide processes appear to be the major stand processesPotential Windthrow Hazard: ModerateDamaging Agents: Old blowdown in area noted during recon.Species Composition (trees 5+" DBH): 70 %WH %MH %AC 30 %SSStand Structure: 90% canopy closure. Uneven aged hemlock/spruce stand.

Stand has some very large, older trees.

Ave. Height: 100 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 30%-65% blueberry; 5%-15% devil's club.Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 718 MBFVolume by Species: H MBF AC MBF SS MBFSUMMARY OF OTHER RESOURCES AND VALUES:Soils - High hazard soils, especially in south half of unit. Fall trees away  
from v-notches and remove any slash or debris introduced into them. Ensure  
N/S boundaries above slope break of deep v-notch.Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches and Class III channel along northern boundary.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

**Transportation System:** Construct helicopter landing near road 7543.

**Logging System:** Designed for helicopter. Recommended landing is located northwest off of road 7543. Require directional felling away from v-notches. Western boundary is existing clearcuts.

**Unit Boundary:** Western boundary is existing clearcuts. Class III stream located near north boundary. Layout boundary for windfirmness.

**Streamside Management:** No concerns. Class III stream located just north of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches and along Class III stream on north end of unit. Helicopter yarding will minimize soil disturbance. Close, drain and seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1300 of the SE Chichagof Timber Sale

STAND #104-106,110

VCU 239

MANAGEMENT AREA C37

ACRES 28 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-134

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 600 to 1600 ft. Aspect: SW to S Slope: 60 to 100+%

Landform: Smooth, infrequently dissected mountainslopes/mountainslope ravines.

Slope Configuration: Convex Site Index (Farr): 74

Plant Association: Western hemlock/blueberry and western hemlock/blueberry-devil's club.

Soil: SMU = 3525E, 3549E, 3779E.

Parent Material: Colluvium / residuum.

Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam / gravelly silt loam.

Potential of Mass Failure: Moderate to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru of area done) Date 07/18/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate to high

Damaging Agents: Old blowdown throughout area.

Species Composition (trees 5+" DBH): 60 %WH %MH 10 %AC 30 %SS

Stand Structure: 90% canopy closure. Uneven aged hemlock/spruce with minor amount of cedar.

Ave. Height: 100 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 40%-80% blueberry; 5%-15% devil's club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 906 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Ensure that north and south boundaries are above slope break of drainage.

Fisheries, Hydrology, Wildlife - No concerns.





MANAGEMENT DIRECTION:

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III streams adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil. Cedar will be a minor component due to lack of seed sources and periodicity of regeneration success.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Construct a helicopter landing near existing road 7543.

**Logging System:** Designed for helicopter. Recommended landing is located westward off of road 7543. Require directional felling away from v-notches. Western boundary is existing clearcuts.

**Unit Boundary:** Western boundary is existing clearcuts. Review area within unit (shown as out) for extreme hazard soils; include if not. Provide for windfirmness. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Class III streams located to the north and south of unit boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Require directional felling along v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 1310 of the SE Chichagof Timber Sale

STAND # 113 VCU 239 MANAGEMENT AREA C37

ACRES 3 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-134

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 600 to 1000 ft. Aspect: NW Slope: 65 to 100+%

Landform: Smooth frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 66

Plant Association: Western hemlock/blueberry.

Soil: SMU = 3249E

Parent Material: Colluvium / residuum

Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (Recon of area from rd. done) Date 07/18/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate to high

Damaging Agents: Blowdown scattered through area.

Species Composition (trees 5+" DBH): 90 % H % %AC 10 %SS

Stand Structure: 80% canopy closure. Uneven aged stand of hemlock with minor amounts of spruce. Brushfields above area occupied by alder and salmonberry.

Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 70%-80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 138 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure south boundary is above slope break of v-notch.

Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches.

**Alternatives Considered:** Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Construct helicopter landing near road 7543.

**Logging System:** Designed for helicopter. Recommended landing is located northwestward off of road 7543. Require directional felling away from v-notch. Western boundary is located at existing clearcut.

**Unit Boundary:** Western boundary is located at existing clearcut. Layout wind-firm boundary.

**Streamside Management:** No concerns. V-notch located along south boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notch. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1311 of the SE Chichagof Timber Sale

STAND #109,111,113

VCU 239

MANAGEMENT AREA C37

ACRES 41 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-134

Scale: 1:12000

1/4 Quad ID: SITC4NE

SITE CHARACTERISTICS:

Elevation: 600 to 1200 ft. Aspect: SW to W Slope: 65 to 100%

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 66

Plant Association: Western hemlock/blueberry and western hemlock/blueberry-devil's club.

Soil: SMU = 3249E

Parent Material: Colluvium/residuum

Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam.

Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (Recon of area from rd. done) Date 07/18/90

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate to high

Damaging Agents: Blowdown scattered through area.

Species Composition (trees 5+" DBH): 90 % H % AC 10 % SS

Stand Structure: 80% canopy closure. Uneven aged stand of hemlock with minor amounts of spruce.

Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 70%-80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1581 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure that east boundary avoids area of extreme mass movement hazard as shown on photo, and that north boundary is above slope break of v-notch. Fall trees away from v-notches.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II/III streams adjacent to unit.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

**Transportation System:** Construct helicopter landing near road 7543.

**Logging System:** Designed for helicopter. Recommended landing is located northward (or southward) off of the 7543 road. Require directional felling away from v-notches and Class II stream buffer. Western boundary is existing clearcut.

**Unit Boundary:** Western boundary is existing clearcut. Class II/III stream forms boundary to the south. Provide windfirm boundary. Avoid extreme haz. soils.

**Streamside Management:** No concerns. Class II TTRA buffer adjacent to unit on south boundary. Class III streams along south/north boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches and Class II/III streams. Helicopter yarding will minimize soil disturbance. Close, drain, & seed ldg(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 1320 of the SE Chichagof Timber Sale

STAND #113, 193

VCU 239

MANAGEMENT AREA C37

ACRES 72 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-134

Scale: 1:12000

1/4 Quad ID: SITC3NW

SITE CHARACTERISTICS:

Elevation: 200 to 1250 ft. Aspect: NW to N Slope: 30 to 65+ %

Landform: Smooth, infrequently dissected mountainslopes/broken mountainslopes.

Slope Configuration: Convex Site Index (Farr): 79

Plant Association: Western hemlock/blueberry/shield fern, mixed conifer/  
blueberry and western hemlock/blueberry.

Soil: SMU = 3557C, 3643B, 3006E.

Parent Material: Colluvium/residuum/ablation till over compact till.

Soil Depth: (cm) 150 Soil Texture: Silt loam/gravelly silt loam/gravelly loam

Potential of Mass Failure: Low to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru of area done) Date 07/18/90

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate to high

Damaging Agents: Blowdown scattered through area.

Species Composition (trees 5+" DBH): 60 %WH %MH 10 %AC 30 %SS

Stand Structure: 90% canopy closure. Uneven aged stand of hemlock/spruce with  
minor amounts of cedar.

Ave. Height: 100 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-90% blueberry; <5% salmonberry and sitka alder.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 2818 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure south boundary avoids area of extreme mass movement hazard as  
shown on photo.

Visuals - Blend boundaries with topographic features and natural openings.

Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II stream adjacent to unit.

**Alternatives Considered:** Regeneration treatments considered are clearcut with reserve trees and partial cut. Likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil. Cedar will likely be a minor component due to lack of seed sources and periodicity of regeneration success.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Construct helicopter landing near road 7543.

**Logging System:** Designed for helicopter. Recommended landing is located westward off of road 7543. Require directional felling away from v-notches and Class II stream buffer. Western boundary is at existing clearcut.

**Unit Boundary:** Blend boundary with topo. and natural openings. Western boundary is at existing clearcut. NE boundary adjacent to Class II TTRA buffer. Avoid extreme hazard soils.

**Streamside Management:** No concerns. TTRA buffer adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along Class II buffer and v-notches. Helicopter yarding will minimize soil disturbance. Close, drain, & seed ldg(s). Fuel Treatment: None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

UNIT # 1330 of the SE Chichagof Timber Sale

STAND #188, 202

VCU 239

MANAGEMENT AREA C37

ACRES 28 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-132

Scale: 1:12000

1/4 Quad ID: SITC3NW

**SITE CHARACTERISTICS:**

Elevation: 700 to 1000 ft. Aspect: SW to NW Slope: 25 to 70+ %  
 Landform: Frequently dissected ftslopes/alluvial fans/broken mountain&hillslopes.  
 Slope Configuration: Convex Site Index (Farr): 89  
 Plant Association: Sitka spruce/blueberry-devil's club, western hemlock/  
blueberry/shield fern and mixed conifer/blueberry.  
 Soil: SMU = 5234B, 3657C.  
 Parent Material: Colluvium / residuum / alluvium  
 Soil Depth: (cm) 150 Soil Texture: Silt loam / gravelly silt loam.  
 Potential of Mass Failure: Low

**STAND CHARACTERISTICS:**

Stand Examination: Type None (Walk-thru of area done) Date 06/27/90  
 Stand History: Wind/slide processes appear to be the major stand processes  
 Potential Windthrow Hazard: Moderate  
 Damaging Agents: Frost crack, broken tops and mistletoe are present. Some  
pinicola seen. Generally low defect and rot.  
 Species Composition (trees 5+" DBH): 55 %WH %MH %AC 45 %SS  
 Stand Structure: 90% canopy closure. Many poles in some areas. Uneven aged  
hemlock/spruce stand.  
 Ave. Height: 120 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  
 Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):   
 Ground Cover: 60%-90% blueberry; <5% salmonberry and alder; 5%-15% devil's  
club.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1193 MBF  
 Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown on  
photo.  
Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II stream adjacent to unit.

**Alternatives Considered:** Regeneration treatments considered are clearcut with reserve trees and partial cut. Presence of mistletoe, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce will likely be confined to areas adjacent to streams and areas where sufficient soil disturbance occurs to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Construct helicopter landing near road 7543.

**Logging System:** Designed for helicopter. Recommended landing is located westward off of road 7543. Require directional felling away from Class II stream buffer. Locate boundary above cable-accessible ground.

**Unit Boundary:** Locate boundary above cable-accessible ground. SW boundary adjacent to Class II stream; incorporate TTRA buffer into unit layout. Avoid extreme hazard soils.

**Streamside Management:** No concerns. Class II stream located along SW boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along TTRA buffer. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.

**Commercial Thinning:** Option due to high site quality; consider economics of helicopter thinning during evaluation.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

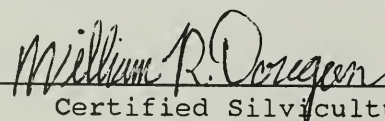
**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

  
Certified Silviculturist

Date: 08 /01 /92



**INTEGRATED SILVICULTURE PRESCRIPTION**

Page 1 of 3

UNIT # 2770 of the SE Chichagof Timber Sale

STAND #55,85,87

VCU 240

MANAGEMENT AREA C37

ACRES 51 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 46 Photo #'s 284-53

Scale: 1:12000

1/4 Quad ID: SITC3NW

**SITE CHARACTERISTICS:**

Elevation: 350 to 780 ft. Aspect: SE Slope: 50 to 75 %

Landform: Broken mountainslopes and hillsides.

Slope Configuration: Convex Site Index (Farr): 85

Plant Association: Western hemlock/blueberry, western hemlock/blueberry/shield fern and mixed conifer/blueberry.

Soil: SMU = 3657D, 6174B

Parent Material: Colluvium/residuum/ablation till

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam to loam

Potential of Mass Failure: Low

**STAND CHARACTERISTICS:**

Stand Examination: Type None (Walk-thru of stand 55 done) Date 09/01/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: High

Damaging Agents: High cull and mortality noted, with cedar decline evident.

Old blowdown common.

Species Composition (trees 5+ " DBH): 80 %WH %MH 15 %AC 5 %SS

Stand Structure: Uneven aged hemlock/cedar stand with minor amounts of spruce.

Stand is brushy, with understory confined mainly to canopy gaps created by blowdown.

Ave. Height: 70 ft. Basal Area: 220 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+ " DBH): 12-30 in. Ave. TPA (trees 5+ " DBH): 200

Ground Cover: 65%-80% blueberry

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1832 MBF

Volume by Species: H MBF AC MBF SS MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Wildlife - High quality (HSI=1.0) brown bear is located outside the unit to the southeast. Avoid expansion into this area.

Soils - There appears to be a small stream in settings 1 and 2 that would require full suspension. Northeast part of unit has wetness problems and sensitive soils; Recommend full suspension, if possible - otherwise partial suspension.

Fisheries and hydrology have no concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III/II streams within and adjacent to unit.

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Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Decadence of overstory, likelihood of blow-down and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of the unit. Cedar and spruce will likely be minor components in the new stand. Cedar will be more successful in areas of wetter soils, while spruce will be successful in areas along streams and where adequate soil disturbance exposes mineral soil.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Accessed by road 75467.

**Logging System:** Designed for running skyline. Require directional felling away from v-notches. Require partial suspension at a minimum for setting 4; full suspension over small streams.

**Unit Boundary:** Provide windfirm boundary. NE corner of unit is adjacent to Class II TTRA buffer. Class III stream forms north boundary.

**Streamside Management:** No concerns. Directional felling away from Class II/III streams. TTRA buffer adjacent to unit.

**Wildlife Management:** High quality (HSI=1.0) brown bear located to the southeast of the unit. Avoid expansion of unit into this area.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension setting 4; full suspension over small streams. Maintain drainage (culverts, ditches) on Rd. 75467.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 14-16 years after harvest. Base needs on result of PCT exam.

**Commercial Thinning:** Option due to high site quality. Evaluate 55-60 years after harvest using stand exam.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on PCT exam results		RD Silv.
Evaluate comm. thin opportunity using stand exam 55-60 years after harvest		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

**INTEGRATED SILVICULTURE PRESCRIPTION**

Page 1 of 3

**UNIT # 2800** of the SE Chichagof **Timber Sale**

**STAND # 42,50,55**

**VCU 240**

**MANAGEMENT AREA C37**

**ACRES 51** Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 46 Photo #'s 284-54

Scale: 1:12000

1/4 Quad ID: SITC3SW

**SITE CHARACTERISTICS:**

Elevation: 400 to 900 ft. Aspect: SE to NW Slope: 5 to 95 %

Landform: Smooth, infrequently dissected hillslopes.

Slope Configuration: Concave/even slope Site Index (Farr): 81

Plant Association: Western hemlock/blueberry, western hemlock/devil's club/  
shallow soils and western hemlock/yellow cedar/rusty menziesia.

Soil: SMU = 4451D, 5256B

Parent Material: Colluvium/residuum

Soil Depth: (cm) 25-40 Soil Texture: Silt loam to gravelly loam.

Potential of Mass Failure: Moderate to high.

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11 Date 09/01/91

Stand History: Glacial moraine - scattered boulders. Old blowdown area.

Potential Windthrow Hazard: High.

Damaging Agents: High cull and mortality. Pinicola common. Lots of snags and  
old blowdown. Light mistletoe/forks/crooks and sweeps.

Species Composition (trees 5+" DBH): 93 %WH 0 %MH 4 %AC 3 %SS

Stand Structure: Decadent older trees, with heavy downed trees. Good regen in  
heavy blowdown areas. Not much regen in brush/boulder areas. Uneven aged.

Ave. Height: 85-110ft. Basal Area: 260 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" DBH): 160-190

Ground Cover: 20%-40% blueberry, 5%-15% rusty menziesia and devil's club; <5%  
salmonberry and current.

Total Net Sawlog Vol/Acre: 27.2 MBF Total Unit Vol: 1666 MBF

Volume by Species: H 24.4 MBF AC 0.7 MBF SS 2.1 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils - Recommend partial suspension of the riparian soils along the northern  
boundaries of settings 3 and 4.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserved trees and partial cut. Decadence/poor vigor of overstory, likelihood of blowdown and presence of mistletoe preclude partial cut. Attempts should be made to save advanced regeneration wherever possible, however. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce and cedar will likely be minor components, due to lack of seed sources. Where feasible, protecting advanced regeneration will add to structural and species diversity.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

**Transportation System:** Temporary spur accessing unit will be closed, waterbarred and grass-seeded after harvest.

**Logging System:** Designed for running skyline and live skyline (approx. 1300 ft. EYD). Require partial suspension in settings 3 and 4. Require directional felling away from Class II stream buffer.

**Unit Boundary:** Provide windfirm boundary. Class II TTRA buffer should be incorporated into unit boundary layout.

**Streamside Management:** No concerns. Class II stream adjacent to unit on north boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension in settings 3 and 4. Directional felling along Class II stream buffer. Close, waterbar, and grass-seed spur road.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 2820 of the SE Chichagof Timber Sale

STAND #17,18,32

VCU 240

MANAGEMENT AREA C37

ACRES 51 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-167

Scale: 1:12000

1/4 Quad ID: SITC4SE

SITE CHARACTERISTICS:

Elevation: 675 to 1050 ft. Aspect: S to SE Slope: 5 to 65 %

Landform: Gently sloping lowlands/ smooth frequently & infreq. dissected mtslopes

Slope Configuration: Convex Site Index (Farr): 62

Plant Association: Mixed conifer/blueberry/skunk cabbage, western hemlock/  
blueberry and western hemlock/blueberry/shield fern.

Soil: SMU = 6141B, 3545C, 3221D

Parent Material: Colluvium/ablation till

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam/loam

Potential of Mass Failure: Low to moderate

STAND CHARACTERISTICS:

Stand Examination: Type None Date / /

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents:

Species Composition (trees 5+" DBH): %WH %MH %AC %SS

Stand Structure: Uneven aged hemlock stand with minor amounts of spruce and  
cedar.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 65%-80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1476 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Recommend full suspension in the upper halves of settings 1, 3, and the  
northwestern part of setting 5 because of unstable soils.

Fisheries, Hydrology, Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit. Protect soil resource.

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Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; cedar and spruce will likely be minor components. Cedar should be successful in wetter areas, while spruce will likely be confined to areas adjacent to streams and where sufficient soil disturbance occurs to expose mineral soil.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Accessed by road 7543.

**Logging System:** Designed for running skyline. Require directional felling & split yarding away from v-notches. Require full suspension in settings 1, 3, & 5 due to high hazard soils; partial at minimum. Require directional fell away from Class II buffer.

**Unit Boundary:** Provide windfirm boundary. Incorporate TTRA buffer into boundary layout.

**Streamside Management:** No concerns. Class II stream adjacent to unit. V-notches within unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Full suspension in settings 1,3,5. Maintain drainage (culverts and ditches) on Rd. 7543.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*

Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 2821 of the SE Chichagof Timber Sale

STAND # 17, 18

VCU 240

MANAGEMENT AREA C37

ACRES 24 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-167

Scale: 1:12000

1/4 Quad ID: SITC4SE

SITE CHARACTERISTICS:

Elevation: 700 to 1200 ft. Aspect: S to SE Slope: 5 to 75 %

Landform: Smooth frequently dissected mountainslopes/gently sloping lowlands.

Slope Configuration: Convex Site Index (Farr): 79

Plant Association: Western hemlock/blueberry/shield fern and mixed conifer/  
blueberry/skunk cabbage.

Soil: SMU = 3221D, 6141B

Parent Material: Colluvium/residuum/ablation till

Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam.

Potential of Mass Failure: Low to moderate

STAND CHARACTERISTICS:

Stand Examination: Type None Date / /

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents:

Species Composition (trees 5+\" DBH): %WH %MH %AC %SS

Stand Structure: Uneven aged hemlock stand with minor amounts of spruce and  
cedar.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH):

Ground Cover: 65%-80% blueberry; 5%-15% skunk cabbage.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 878 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - High hazard soils; recommend full suspension on the upper halves of  
settings 1 & 2 and partial suspension on the rest of the unit.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit. Protect soil resource.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and will provide for establishment of shade intolerant trees (refer to Items 4 and 5 Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of the unit; spruce and cedar will likely be minor stand components, due to lack of seed sources. Spruce will be confined primarily to areas along streams and where soil disturbance exposes mineral soil; cedar will do well in areas of wetter soils.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

**Transportation System:** Accessed by road 75434.

**Logging System:** Designed for running skyline. Require directional fell away from v-notches and Class II stream buffer. Require full suspension for settings 1 and 2; partial suspension for rest of unit as a minimum due to high hazard soils.

**Unit Boundary:** Provide for windfirmness. Incorporate TTRA buffer into boundary layout.

**Streamside Management:** No concerns. Class II/III streams adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from v-notches and Class II/III streams. Maintain drainage (culverts, ditches) on Rd. 75434.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 2850 of the SE Chichagof Timber SaleSTAND #100,103,117VCU 240MANAGEMENT AREA C37ACRES 40 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1984 Flight Line 47C Photo #'s 184-15Scale: 1:120001/4 Quad ID: SITC3SW**SITE CHARACTERISTICS:**Elevation: 550 to 1000 ft. Aspect: NW Slope: 5 to 75 %Landform: Smooth, infrequently dissected mountainslopes and footslopes.Slope Configuration: Even to convex Site Index (Farr): 83Plant Association: Western hemlock/blueberrySoil: SMU = 5147B, 3557DParent Material: Colluvium/ablation till over compact till.Soil Depth: (cm) 150 Soil Texture: Gravelly to mucky silt loam.Potential of Mass Failure: Low to moderate**STAND CHARACTERISTICS:**Stand Examination: Type None Date / /Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: Low to moderate

Damaging Agents: \_\_\_\_\_

Species Composition (trees 5+" DBH): %WH %MH %AC %SSStand Structure: Uneven aged hemlock stand with minor amounts of spruce and cedar.Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): \_\_\_\_\_Ground Cover: 60%-80% blueberry.Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 1204 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils - Ensure east boundary is above slope break of v-notch and recommend partial suspension in setting 1 to minimize disturbance to high hazard soils.Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II/III streams adjacent to unit.

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**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit; spruce and cedar will likely be minor stand components. Spruce will likely regenerate near streams and where sufficient soil disturbance exposes mineral soil. Cedar should regenerate in areas of wetter soils.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by road 7546 and temporary spur off 7546.  
Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for downhill highlead and running skyline. Require  
partial suspension for setting 1.

**Unit Boundary:** Ensure east boundary is above slope break of v-notch.

**Streamside Management:** No concerns. Class III stream located along east  
boundary. Portion of Class II TTRA buffer located along NE boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity.  
Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along v-notches. Partial suspension in  
setting 1. Close, waterbar, & seed temp. road. Maintain drainage on Rd. 7546.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*

Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 3670 of the SE Chichagof Timber Sale

STAND #64, 73,

VCU 246

MANAGEMENT AREA C34

ACRES 35 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 32 Photo #'s 1184-5

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 620 to 1200 ft. Aspect: W Slope: 20 to 70 %

Landform: Smooth, infrequently dissected mtslopes to frequently dissected ftslope

Slope Configuration: Convex Site Index (Farr): 71

Plant Association: Western hemlock/blueberry and mixed conifer/blueberry/deer cabbage.

Soil: SMU = 3525D, 5277B.

Parent Material: Colluvium/residuum/ablation till over compact till.

Soil Depth: (cm) 40 & 150 Soil Texture: Gravelly silt loam to silt loam.

Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 (Stand 73 only) Date 07/07/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate

Damaging Agents: Old blowdown scattered. Weather damage evident. Mistletoe in hemlock, though not a severe infection.

Species Composition (trees 5+" DBH): 90 %WH %MH 7 %AC 3 %SS

Stand Structure: Uneven aged stand. Overstory consists of large, decadent trees with scattered understory of saps/poles. Wet indicators in depressions.

Ave. Height: 103 ft. Basal Area: 520sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 17 in. Ave. TPA (trees 5+" DBH): 316

Ground Cover: 70%-80% blueberry; <5% devil's club and skunk cabbage.

Total Net Sawlog Vol/Acre: 79.2 MBF Total Unit Vol: 958 MBF

Volume by Species: H 45.1MBF AC 16 MBF SS 18.1 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts. Mit effects of sidecast slash within 30 ft. of road shoulders. Make limited adjustments to soften N,S,W bdrys.

Soils - Split yard on v-notches. Recommend at least partial suspension for the northeast corner of setting 3, as shown on phot, due to high hazard soils.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III streams within and adjacent to unit.

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Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Decadence of overstory and presence of mistletoe preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of the area; spruce and cedar will likely be minor stand components due to lack of seed sources. Spruce will be successful where mineral soil is exposed; cedar will be more successful in wetter areas.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Unit will be accessed by a temporary spur. Close, water-bar and grass seed after use. Locate road and landings to minimize visual impacts.

**Logging System:** Designed for highlead. Require directional felling away from and split yard v-notches.

**Unit Boundary:** Make limited adjustments to soften the straight-edge effect at the north, south and western boundaries.

**Streamside Management:** No concerns. Class III streams located adjacent to unit. V-notches within unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Close, waterbar, and grass-seed temporary road. Directional felling along v-notches. Maintain drainage (culverts, ditches) on Rd. 75664.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 3710 of the SE Chichagof Timber SaleSTAND # 60,64,73VCU 246MANAGEMENT AREA C34ACRES 40 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 32 Photo #'s 1184-6Scale: 1:120001/4 Quad ID: SITC5NE**SITE CHARACTERISTICS:**Elevation: 500 to 1100 ft. Aspect: W Slope: 5 to 55 %Landform: Smooth infrequently dissected mtslopes/frequently dissected footslopes.Slope Configuration: Convex to even Site Index (Farr): 73Plant Association: Western hemlock/blueberry and mixed conifer/blueberry/deer cabbage.Soil: SMU = 3547C, 5296B, 5247BParent Material: Colluvium/ablation till/organic.Soil Depth: (cm) 150 Soil Texture: Loam/mucky silt loam/peat.Potential of Mass Failure: Low**STAND CHARACTERISTICS:**Stand Examination: Type None (Walk-thru by logging specialist) Date 05/22/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: Moderate

Damaging Agents: \_\_\_\_\_

Species Composition (trees 5+" DBH): \_\_\_\_\_ %WH \_\_\_\_\_ %MH \_\_\_\_\_ %AC \_\_\_\_\_ %SS

Stand Structure: Uneven aged stand of hemlock with cedar/spruce as minor components.Ave. Height: \_\_\_\_\_ ft. Basal Area: \_\_\_\_\_ sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): \_\_\_\_\_ in. Ave. TPA (trees 5+" DBH): \_\_\_\_\_

Ground Cover: 80% blueberry.Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 1088 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils - Ensure south boundary is above slope break of v-notch. Recommend at least partial suspension over shallow soils in the lower part of setting 4.Hydrology - C.III stream borders south side of unit. Maintain unit boundary to slope break of C.III channel. BMP 13.16.Visuals - Locate roads, landings, rockpits to minimize visual impacts. Make limited adjustments to soften eastern and southern boundaries.Fisheries, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams within and adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage cedar/spruce regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Temporary spur road will access this unit. The grade out of this unit will be up to 18% favorable. For visuals - locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline and highlead. Require directional felling away from and split yard v-notches.

**Unit Boundary:** C.III stream borders south side of unit. Ensure south boundary is above slope break of v-notch. Provide windfirm boundary.

**Streamside Management:** Class III stream on south boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell away from Class III/v-notches. Split yard v-notches. Close, waterbar, and grass-seed spur post-harvest.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

*William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

**UNIT # 3720 of the SE Chichagof Timber Sale**

**STAND # 50, 58                      VCU 246                      MANAGEMENT AREA C34**

**ACRES 83      Determined How: GIS                      By Whom: T.Falkner      Date: 1991**

Aerial Photo: Year 1986      Flight Line 32      Photo #'s 1184-6  
 Scale: 1:12000  
 1/4 Quad ID: SITC5NE

**SITE CHARACTERISTICS:**

Elevation: 400 to 950 ft.      Aspect: E to NE      Slope: 50 to 80 %  
 Landform: Smooth, frequently dissected mountainslopes.  
 Slope Configuration: Concave      Site Index (Farr): 82  
 Plant Association: Western hemlock-yellow cedar/blueberry.

Soil: SMU = 3247C, 3125D.  
 Parent Material: Colluvium/ablation till over compact till  
 Soil Depth: (cm) 150      Soil Texture: Mucky to gravelly silt loam.  
 Potential of Mass Failure: High.

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11      Date 05/22/91  
 Stand History: Wind/slide processes appear to be the major stand processes  
 Potential Windthrow Hazard: Low to moderate.  
 Damaging Agents: High amount of weather injuries (broken tops/frost crack/crooks) with scattered rots. Basal rot common in cedar. Light to moderate mistletoe.

Species Composition (trees 5+" DBH): 80-90%WH      0 %MH      5-10 %AC      5-15%SS  
 Stand Structure: Uneven aged. Understory is poorly stocked, with mostly scattered hemlock. Brush competition is generally low.

Ave. Height: 90-100ft.      Basal Area: 260 sq.ft.      Ave. Age: 150+ yr.  
 Ave. DBH (trees 5+" DBH): 12-18in.      Ave. TPA (trees 5+" DBH): 150-550  
 Ground Cover: 20% blueberry; 5%-20% rusty menziesia.

Total Net Sawlog Vol/Acre: 22.6 MBF      Total Unit Vol: 2278 MBF  
 Volume by Species: H 12.2 MBF      AC 3.7 MBF      SS 6.7 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Visuals-Locate roads & landings to min. visual impacts. Locate & design rockpits to min. visual impacts. Mit. effects of sidecast slash w/in 30 ft. of road shoulders. Blend boundaries w/ topo features and natural openings  
Soils-Almost all unit has a high mass movement hazard. Recommend split yarding or full suspension over v-notches & slopes >75%; partial suspension on the rest of the unit. Hydrology-C.III stream w/in unit which is in a high mass wasting hazard area potential for sediment delivery to the C.I, stream. Protect C.III, split yard, maintain buffer to the C.I, log suspension, employ erosion prevention measures. BMP 13.9,13.11,13.16. Fisheries, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I, II and III streams within and adjacent to unit.

**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut not feasible due to decadence of overstory and presence of mistletoe. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce is expected to be a minor component in the new stand, confined primarily to areas adjacent to streams and where sufficient soil disturbance exposes mineral soil. Cedar will regenerate on wetter sites and will be a minor stand component.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for structural diversity and wildlife. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Accessed by Rd.#7566 and a temporary spur road. Close, waterbar, and grass-seed temp. road post-harvest. For visuals - locate road and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for slackline. Require directional felling away from and split yard v-notches. Require partial suspension for entire unit due to high hazard soils. Directional fell away from Class I and II stream buffers.

**Unit Boundary:** Blend boundaries with topoq. and natural openings. Incorporate Class I and II TTRA buffers into unit boundary layout.

**Streamside Management:** CIII stream within unit which is in a mass wasting hazard area, high potential for sediment delivery to the C.I stream. Objective: protect CIII and reduce erosion. Split yard on the C.III, maintain buffer to the C.I, log suspension recommended, employ erosion prevention measures. BMP 13.9,11,16

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** See Streamside Management above. Close, waterbar, and seed temporary spur and maintain drainage (culverts, ditches) on Rd. 7566.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffers for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTIONPage 1 of 3UNIT # 3790 of the SE Chichagof Timber SaleSTAND #18,20,27,28 VCU 246 MANAGEMENT AREA C34ACRES 35 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 32 Photo #'s 1184-7Scale: 1:120001/4 Quad ID: SITC5NESITE CHARACTERISTICS:Elevation: 300 to 900 ft. Aspect: W Slope: 15 to 65 %Landform: Smooth infrequently dissected mtslopes/frequently dissected footslopes.Slope Configuration: Covcave/convex/valley bottom Site Index (Farr): 34Plant Association: Western hemlock-yellow cedar/blueberry and Western hemlock/blueberry.Soil: SMU = 3551D, 5296B, 6190BParent Material: Colluvium/residuum/organic.Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam, gravelly loam and peat.Potential of Mass Failure: From low to high.STAND CHARACTERISTICS:Stand Examination: Type R6 Quick Plot Type 11 Date 05/26/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: Moderate.Damaging Agents: Defect and decay are moderate to high. Light to moderate pinicola. High weather injuries in areas. Light mistletoe in some areas.Species Composition (trees 5+" DBH): 70-90 %WH 10-30 %MH 10-30%AC 0 %SSStand Structure: Uneven aged and storied. Crown closure is 40%-50%. Regen is moderate to high in most areas. Fairly brushy in some places.Ave. Height: 90-100ft. Basal Area: 250 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 100-150Ground Cover: 10%-30% blueberry; 5%-15% rusty menziesia.Total Net Sawlog Vol/Acre: 22.4 MBF Total Unit Vol: 951 MBFVolume by Species: H 18.8 MBF AC 3.6 MBF SS 0 MBFSUMMARY OF OTHER RESOURCES AND VALUES:

Fisheries, Hydrology, Wildlife-No concerns. Visuals-Locate roads & ldgs. to min. visual impacts. Locate and design rockpits to minimize visual impacts. Mit. effects of sidecast shash within 30 ft. of road shoulders. Limited adj. to soften E.boundary. Soils - Avoid yarding down the v-notch in the center of setting 1 and try to maintain some suspension near the landing in setting 1 because of wet soils. Recommend at least partial suspension over any other notches that might be present.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I, II and III streams within and adjacent to unit.

**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory and presence of mistletoe. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Cedar will likely be a minor stand component due to lack of seed sources and reproductive vigor; wetter areas will likely regenerate with a higher cedar component.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by road 7566 and a spur road that will be closed waterbarred & seeded after harvest. For visuals - locate roads & landings to minimize visual impact. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for running skyline. Locate backline below extreme hazard soils.

**Unit Boundary:** Make limited adjustment to soften straight-edge effect of the eastern boundary. Incorporate Class II TTRA buffer into unit layout.

**Streamside Management:** No concerns. Class II/III stream adjacent to south unit boundary. Directional fell away from streams.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Close, waterbar & grass-seed spur road. Maintain drainage (culverts, ditches) on Rd. 7566.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 3810 of the SE Chichagof Timber Sale

STAND # 14, 15

VCU 246

MANAGEMENT AREA C34

ACRES 26 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 32 Photo #'s 1184-8

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 650 to 950 ft. Aspect: E Slope: 35 to 55 %

Landform: Broken mountainslopes and hillslopes.

Slope Configuration: Convex Site Index (Farr): 79

Plant Association: Western hemlock/blueberry.

Soil: SMU = 3647C.

Parent Material: Colluvium or ablation till over compact till.

Soil Depth: (cm) 150 Soil Texture: Mucky silt loam

Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type None (walk-thru done on Stand 14) Date 05/27/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: High

Damaging Agents: Frost cracks common. Broken tops throughout area, with low to moderate defect and decay on walk-thru.

Species Composition (trees 5+" DBH): 90 %WH %MH %AC 10 %SS

Stand Structure: Two-storied stand of primarily hemlock with minor amounts of spruce. Understory is sparse.

Ave. Height: 120 ft. Basal Area: 240 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 20-30in. Ave. TPA (trees 5+" DBH):

Ground Cover: 70%-80% blueberry.

Total Net Sawlog Vol/Acre:  MBF Total Unit Vol: 1406 MBF

Volume by Species: H  MBF AC  MBF SS  MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Numerous small notches are present; recommend full suspension wherever possible; Otherwise at least partial suspension. Ensure north and south boundaries are above slope breaks of the notches in those areas.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and v-notches within unit.

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Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory and high potential for windthrow. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the stand. Spruce will be a minor component, confined primarily to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

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Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

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**Transportation System:** Temporary spur road accesses this unit. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Require directional felling away from and split yard v-notches; full suspension over v-notches that cannot be split yarded (minimum partial suspension for entire unit).

**Unit Boundary:** Ensure north and south boundaries are above slope breaks of the notches in those areas. Layout boundaries for windfirmness.

**Streamside Management:** No concerns. Several v-notches within/adjacent to unit. TTRA buffer adjacent to SE corner of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Close, waterbar & grass-seed temp. road. Partial/full suspension to minimize soil disturbance. Directional fell/split yard v-notches.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



UNIT # 3820 of the SE Chichagof Timber SaleSTAND # 5, 7, 8VCU 246MANAGEMENT AREA C34ACRES 18 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 32 Photo #'s 1184-8Scale: 1:120001/4 Quad ID: SITC5NE**SITE CHARACTERISTICS:**Elevation: 520 to 800 ft. Aspect: E Slope: 0 to 10 %Landform: Broken mountainslopes and hillsidesSlope Configuration: Valley bottom Site Index (Farr): 64Plant Association: Western hemlock/blueberrySoil: SMU = 3649CParent Material: Colluvium/residuumSoil Depth: (cm) 25-40 Soil Texture: Silt loam to gravelly loamPotential of Mass Failure: Low.**STAND CHARACTERISTICS:**Stand Examination: Type R6 Quick Plot Type 11 (Stand 7 only) Date 05/27/91Stand History: Wind processes appear to be the major stand development influencePotential Windthrow Hazard: HighDamaging Agents: Low defect; low to moderate decay; Few broken tops; frost cracks are common; moderate amounts of mistletoe.Species Composition (trees 5+\" DBH): 85-95 %WH 0 %MH 0 %AC 5-15 %SSStand Structure: Crown closure 40%-50%. Little regen. in understory. Storied stand with 2 canopy layers.Ave. Height: 116 ft. Basal Area: 240 sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): 26 in. Ave. TPA (trees 5+\" DBH): 65Ground Cover: 15% blueberry.Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 506 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils, Hydrology, Wildlife - No concerns.Fisheries - C.II channel on north side of unit, requires 100 ft. buffer.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit.

**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory, presence of mistletoe, likelihood of blowdown and desire to encourage spruce regeneration. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce will be planted at 12 x 12 spacing over the entire unit to ensure species diversity and provide for a more vigorous, healthy stand.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Accessed by temporary spur road which will be closed, waterbarred and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Require directional felling away from Class II stream buffer.

**Unit Boundary:** TTRA buffer adjacent to unit on east side. Provide for windfirmness.

**Streamside Management:** C.II channel on north side of unit, requires 100 ft. buffer.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from Class II channel. Close, waterbar, and grass-seed temporary road after harvest.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with spruce following harvest. Plant 12 x 12 ft. spacing.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant entire unit with spruce, 12 x 12 ft. spacing	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Survival exams 1 and 3 years after planting; natural regen. exam included in 3rd year	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

UNIT # 3860 of the SE Chichagof Timber SaleSTAND #128,159,340, VCU 246 MANAGEMENT AREA C34  
343,345ACRES 38 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1986 Flight Line 32 Photo #'s 1184-9  
Scale: 1:12000  
1/4 Quad ID: SITC5NE**SITE CHARACTERISTICS:**

Elevation: 550 to 1000 ft. Aspect: W to NW Slope: 25 to 80 %  
Landform: Smooth, infrequently dissected mountainslopes.  
Slope Configuration: Concave/convex/even slope. Site Index (Farr): 65  
Plant Association: Mixed conifer/blueberry, mixed conifer/skunk cabbage and  
sitka spruce/blueberry.  
Soil: SMU = 3551D  
Parent Material: Colluvium/residuum  
Soil Depth: (cm) 25-40 Soil Texture: Gravelly loam to silt loam.  
Potential of Mass Failure: Moderate to high.

**STAND CHARACTERISTICS:**

Stand Examination: Type R6 Quick Plot Type 11. Date 05/27/91  
Stand History: Wind processes appear to be the major stand development influence  
Potential Windthrow Hazard: Low to moderate.  
Damaging Agents: High weather injuries. High defect and decay in portion of  
unit. Lower in other portions. Moderate to high mistletoe.  
Species Composition (trees 5+\" DBH): 50-70 %WH 0-10 %MH 25-50 %AC 0-5 %SS  
Stand Structure: Stand 345 is storied. Other stands are uneven aged. Regen. is  
light to moderate in understory. Mistletoe has infected the understory.  
Ave. Height: 90-110ft. Basal Area: 180 sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+\" DBH): 18-24in. Ave. TPA (trees 5+\" DBH): 80-120  
Ground Cover: 10%-25% blueberry; <10% rusty menziesia.

Total Net Sawlog Vol/Acre: 22.4 MBF Total Unit Vol: 1141 MBF  
Volume by Species: H 13.4 MBF AC        MBF SS 9.0 MBF

**SUMMARY OF OTHER RESOURCES AND VALUES:**

Soils, Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit.

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**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory and presence of mistletoe in overstory/understory. Clearcut with reserve trees will minimize adverse impacts of disease (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit; spruce is anticipated to be a minor component due to lack of seed sources and the need to have exposed mineral soil for regeneration.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by Rd.#7566. Standard road construction.

**Logging System:** Designed for running skyline. Require directional felling away from Class II stream buffer. Locate backline below extreme hazard soils.

**Unit Boundary:** No concerns. Provide windfirm boundary. Incorporate TTRA buffer into unit boundary layout where necessary. Locate backline below ext. haz. soil.  
**Streamside Management:** Class II stream adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling away from streams. Maintain drainage (culverts, ditches) along Rd. 7566.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed. Evaluate PCT as a tool for sanitation if mistletoe infection becomes severe in regenerating stand.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor mistletoe infection in developing regen.; evaluate need for PCT/sanitation		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92



UNIT # 4110 of the SE Chichagof Timber SaleSTAND #188,189,193, VCU 246 MANAGEMENT AREA C34  
194,225ACRES 58 Determined How: GIS By Whom: T.Falkner Date: 1991Aerial Photo: Year 1990 Flight Line 34B Photo #'s 2784-269  
Scale: 1:12000  
1/4 Quad ID: SITC5SE**SITE CHARACTERISTICS:**Elevation: 220 to 750 ft. Aspect: E Slope: 10 to 75 %  
Landform: Smooth infrequently dissected mtslopes/frequently dissected footslopes.  
Slope Configuration: Convex Site Index (Farr): 65  
Plant Association: Western hemlock/blueberry, mixed conifer/blueberry and  
western hemlock-yellow cedar/blueberry.  
Soil: SMU = 3551D, 5243B, 3151D  
Parent Material: Colluvium/residuum/ablation till over compact till.  
Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam to gravelly loam.  
Potential of Mass Failure: Low to moderate.**STAND CHARACTERISTICS:**Stand Examination: Type None (walk-thru of area done) Date 05/25/91  
Stand History: Wind processes appear to be the major stand development influence  
Potential Windthrow Hazard: Moderate  
Damaging Agents: Quite a bit of pinicola, rot and blowdown in unit.Species Composition (trees 5+" DBH): %WH %MH %AC %SS  
Stand Structure: Uneven aged stand of primarily hemlock with minor amounts of  
cedar and spruce.Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):   
Ground Cover: 80%-90% blueberry.Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 2038 MBF  
Volume by Species: H MBF AC MBF SS MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Visuals - Locate roads, landings and rockpits to minimize visual impacts. Mit-  
igate effects of sidecast slash within 30' of road shoulders. Make limited  
adjustments to soften all unit boundaries.Fisheries, Wildlife, Hydrology - No concerns.Soils - Insure north boundary is above slope break of deep v-notch; recommend  
full suspension on any slopes >75% and partial suspension wherever possible  
above the road.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III channel adjacent to unit.

**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. Likelihood of blowdown, decadence of overstory and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit; spruce and cedar will likely be minor components in regenerating stand. Cedar will likely regenerate in wetter areas; spruce will likely be confined to stream adjacent areas and areas of exposed mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Temporary spur road access to upper part of unit. Close, waterbar, and grass-seed temporary road after harvest. For visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

**Logging System:** Designed for running skyline. Require partial suspension for setting 5 & 6 due to high hazard soils.

**Unit Boundary:** Make limited bdry. adjustments to all boundaries to soften the straight-edge effect. Ensure north boundary is above slope break of deep v-notch. Provide for windfirmness.

**Streamside Management:** No concerns. Class III stream adjacent to north unit boundary.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional felling along Class III stream. Close, waterbar, & seed temp. road. Maintain drainage (culverts, ditches) on Rd. 7762.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

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UNIT # 4140 of the SE Chichagof Timber Sale

STAND #194,224,234, VCU 246 MANAGEMENT AREA C34

ACRES 19 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1990 Flight Line 34B Photo #'s 2784-270

Scale: 1:12000

1/4 Quad ID: SITC5SE

SITE CHARACTERISTICS:

Elevation: 300 to 600 ft. Aspect: SW to W Slope: 10 to 60 %

Landform: Broken mountainslopes and hillsides & gently sloping lowlands.

Slope Configuration: Even slope Site Index (Farr): 72

Plant Association: Western hemlock/blueberry, mixed conifer/blueberry and mixed conifer/skunk cabbage/lady fern.

Soil: SMU = 3647C, 6174B

Parent Material: Colluvium and ablation till over compact till.

Soil Depth: (cm) 150 Soil Texture: Mucky to gravelly silt loam.

Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 (Stand 234 only) Date 09/13/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: Cedar showing decline/butt rot. Light mistletoe throughout.

Some weather damage, pini conks and pinicola conks. Many forks/crooks/sweeps.

Low to moderate decay. Old blowdown evident throughout area.

Species Composition (trees 5+\" DBH): 50-80 %WH 0 %MH 20-50 %AC 0-5 %SS

Stand Structure: Varies throughout unit, from large dbh trees with good form to stunted trees with smaller dbh trees. Stand 233 is mosaic with patches of thick regen. Other stands are uneven aged. Saps/poles are from well stocked to low stocked with poor vigor and form.

Ave. Height: 65-85 ft. Basal Area: 275 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): 14 in. Ave. TPA (trees 5+\" DBH): 300-400

Ground Cover: 40%-70% blueberry; 10%-25% rusty menziesia and devil's club; <5% salmonberry.

Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 516 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Wildlife - High quality (HSI=1.0) brown bear habitat is mapped outside of the unit to the west. Avoid expansion of unit into this area upon verification of high quality rating.

Soils - Recommend partial suspension in this unit because of shallow and/or wet soils.

Fisheries, Hydrology - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream below unit.

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**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. General decadence of overstory, presence of mistletoe, likelihood of blowdown and desire to encourage cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Plant cedar at wide spacing to ensure species diversity in regenerating stand and to ensure adequate regeneration in wetter microsites favorable for cedar.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**INTEGRATED SILVICULTURE PRESCRIPTION**

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**Transportation System:** Accessed by temporary spur road; close, waterbar, and grass-seed after harvest. Road 7623 accesses the bottom of the unit.

**Logging System:** Designed for running skyline.

**Unit Boundary:** Provide for windfirm boundary.

**Streamside Management:** No concerns. Class I stream located below unit.

**Wildlife Management:** High Quality (HSI=1.0) brown bear habitat located to west of unit. Avoid expansion into this area upon verification of mapped high quality rating.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension to protect soil resource. Close, waterbar, and seed temp. road. Maintain drainage (culverts, ditches) on Rd. 7623.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar at 20 x 20 ft. spacing following harvest.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant cedar 20 x 20 ft. spacing over entire unit	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen. exam included in 3rd year.	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4141 of the SE Chichagof Timber Sale

STAND #233,237,241, VCU 246 MANAGEMENT AREA C34

ACRES 18 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1990 Flight Line 34B Photo #'s 2784-270

Scale: 1:12000

1/4 Quad ID: SITC5SE

SITE CHARACTERISTICS:

Elevation: 300 to 500 ft. Aspect: NW to N Slope: 10 to 60 %

Landform: Broken mountainslopes and hillsides/gently sloping lowlands.

Slope Configuration: Even slope Site Index (Farr): 67

Plant Association: Western hemlock/blueberry, mixed conifer/blueberry and mixed conifer/skunk cabbage/lady fern.

Soil: SMU = 3647C, 6174B

Parent Material: Colluvium/ablation till over compact till.

Soil Depth: (cm) 150 Soil Texture: Mucky to gravelly silt loam.

Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 09/13/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate.

Damaging Agents: Cedar showing decline/butt rot. Light mistletoe throughout.

Some weather damage, pini conks, and pinicola conks. Many forks/crooks/sweeps.

Low to moderate decay. Blowdown evident throughout area.

Species Composition (trees 5+" DBH): 50-80 %WH 0 %MH 20-50 %AC 0-5 %SS

Stand Structure: Varies throughout unit from large dbh trees with good form to

stunted trees with smaller diameters. Stand 233 is mosaic with patches of thick

regen. Other stands are uneven aged. Saps/poles are from well stocked to low

stocked with poor vigor and form.

Ave. Height: 65-85 ft. Basal Area: 275 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 300-400

Ground Cover: 40%-70% blueberry; 10%-25% rusty menziesia and devil's club.

<5% salmonberry

Total Net Sawlog Vol/Acre: 23.0 MBF Total Unit Vol: 496 MBF

Volume by Species: H 18.6 MBF AC 2.6 MBF SS 1.8 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Split yard v-notches and recommend partial suspension over the wet

areas in the lower part of the unit to minimize soil disturbance.

Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous stand which will provide sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams adjacent and below unit.

**Alternatives Considered:** Regeneration treatments considered include clearcut with reserve trees and partial cut. Decadence of overstory, presence of mistletoe, likelihood of blowdown and desire to encourage cedar/spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Plant cedar at wide spacing to ensure species diversity and get stocking in wetter areas. Spruce will likely be a minor component, confined to areas adjacent to streams and areas with soil disturbance to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Accessed by temporary spur road off of Rd.#7623. This temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Locate landing for setting 5 to minimize damage to residual trees in unit 4142.

**Unit Boundary:** Provide for windfirm boundary. Class II stream buffer is located adjacent to northeast corner of unit.

**Streamside Management:** No concerns. Class II stream located adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Close, waterbar, and grass-seed temp. road.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar at 20 x 20 ft. spacing following harvest.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant entire unit with cedar, 20 x 20 ft. spacing	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen. exam included in 3rd year	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan

Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4142 of the SE Chichagof Timber Sale

STAND #241, 245

VCU 246

MANAGEMENT AREA C34

ACRES 7 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1990 Flight Line 34B Photo #'s 2784-270

Scale: 1:12000

1/4 Quad ID: SITC5SE

SITE CHARACTERISTICS:

Elevation: 250 to 400 ft. Aspect: NW to N Slope: 10 to 60 %

Landform: Frequently dissected footslopes and alluvial fans.

Slope Configuration: Even slope Site Index (Farr): 97

Plant Association: Western hemlock/blueberry, mixed conifer/blueberry and mixed conifer/skunk cabbage/lady fern.

Soil: SMU = 5220B

Parent Material: Colluvium/residuum/alluvium

Soil Depth: (cm) 150 Soil Texture: Silt loam to gravelly silt loam.

Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11 Date 09/13/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate.

Damaging Agents: Cedar showing decline/butt rot. Light mistletoe throughout.

Some weather damage, pini conks, and pinicola conks. Many forks/crooks/sweeps.

Low to moderate decay.

Species Composition (trees 5+" DBH): 50-80 %WH 0 %MH 20-50 %AC 0-5 %SS

Stand Structure: Generally large diameter hemlock/spruce with scattered midstory of up to 12" DBH trees. Understory generally well stocked, though overhead shading is suppressing crowns. Uneven aged stand.

Ave. Height: 65-85 ft. Basal Area: 275 sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 300-400

Ground Cover: 40%-70% blueberry; 10%-25% rusty menziesia and devil's club.

<5% salmonberry

Total Net Sawlog Vol/Acre: 38.1 MBF Total Unit Vol: 305 MBF

Volume by Species: H 30.5 MBF AC 2.3 MBF SS 5.3 MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Riparian soils. Recommend partial suspension with full suspension over any streams.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags, large down woody material and a portion of the midstory and advanced regeneration. Protect soils. Protect stream channels adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Vigorous midstory makes partial cut feasible. Retain trees up to 12" DBH for structural diversity and to allow additional growth.

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Partial cut (retain advanced regeneration and trees up to 12" DBH). Plant cedar at wide spacing to ensure species diversity. Hemlock will naturally regenerate into gaps following harvest. Spruce will regenerate in areas of exposed mineral soil in canopy gaps.

Marking Guide: ITM trees greater than 12" DBH for removal. If merchantable trees 9-12" DBH must be removed for skyline corridors, ITM these trees. Retain trees up to 12" DBH regardless of spacing. Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary and TTRA buffer to maximize retention during yarding. If inadequate snags exist, utilize green trees up to 12" DBH which will be left to serve as recruitment trees for snags. In addition, live cull can be utilized for green tree retention. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: Possibility exists for commercial thinning of stand due to retention of up to 12" DBH trees as well as high site quality of unit. Evaluate for commercial thinning in conjunction with sale planning in planning area.

**Transportation System:** Accessed by Rd.#7623.

**Logging System:** Designed for running skyline. Suggest ITM. Minimize damage to residual: Predesignate corridors (parallel settings), use rub trees, partial/full suspension, and lateral yarding ability. Directional fell away from Class I stream buffers. Tractor skidding on snow an acceptable alternative.

**Unit Boundary:** Incorporate TTRA buffer design into unit boundary. Provide windfirm boundary.

**Streamside Management:** No concerns. Class I stream adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial/full suspension to protect riparian soils. Maintain drainage (culverts, ditches) on Rd. 7623. Directional fell away from streams.

**Fuel Treatment:** None prescribed.

**Planting:** Plant entire unit with cedar at 20 x 20 ft. spacing following harvest.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for PCT 12-14 years after harvest. Base needs for thinning on results of exam.

**Commercial Thinning:** Possibility for commercial thinning. Evaluate approx. 50 years after harvest, in conjunction with sale planning effort in planning area.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Plant cedar at 20 x 20 ft. spacing following harvest	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen.		
exam included in 3rd year	KV	RD Silv.
Precommercial thinning exam 12-14 years after harvest		RD Silv.
Precommercial thin 15-17 years after harvest; base needs on results of exam		RD Silv.
Stand exam to evaluate opportunity for comm. thin (approx. 50 years following harvest, prior to an entry in area)		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4160 of the SE Chichagof Timber Sale

STAND #174,175,187,228 VCU 246

MANAGEMENT AREA C34

ACRES 31 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1989 Flight Line 34B Photo #'s 2484-108  
Scale: 1:12000  
1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 550 to 1000 ft. Aspect: E Slope: 55 to 75 %  
Landform: Smooth, frequently dissected mountainslopes.  
Slope Configuration: Convex to even Site Index (Farr): 78  
Plant Association: Western hemlock-yellow cedar/blueberry and mixed conifer/blueberry.  
Soil: SMU = 3151D  
Parent Material: Colluvium/residuum  
Soil Depth: (cm) 25-40 Soil Texture: Silt loam to gravelly loam.  
Potential of Mass Failure: Moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (walk-thru by logging specialist) Date 05/26/91  
Stand History: Wind processes appear to be the major stand development influence  
Potential Windthrow Hazard: Low to moderate  
Damaging Agents: Low to moderate pinicola in areas noted during walk-thru by logging feasibility team.

Species Composition (trees 5+ " DBH): %WH %MH %AC %SS  
Stand Structure: Appears to be uneven aged hemlock with small amounts of cedar and spruce.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+ " DBH): in. Ave. TPA (trees 5+ " DBH):   
Ground Cover: 80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1080 MBF  
Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure south boundary is outside stream buffer. Split yard v-notches  
Recommend partial suspension at a minimum to protect high hazard soils. Full  
suspension would be preferable.  
Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams adjacent to and below unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce and cedar will be minor stand components; spruce will regenerate where mineral soil is exposed, while cedar is expected to do well in wetter areas.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by a temporary spur road off the end of road 7762. This spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for slackline. Require directional fell away from and split yard v-notches. Require partial suspension for entire unit due to high hazard soils.

**Unit Boundary:** Layout boundary for windfirmness. Class III streams located adjacent to unit on north/south boundary.

**Streamside Management:** No concerns. Class III streams adjacent to unit. Class II stream below unit. Directional felling along v-notches, streams. Split yard v-notches.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Partial suspension required. Directional felling away from streams. Close, waterbar, and grass-seed temp. road post-harvest.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4250 of the SE Chichagof Timber Sale

STAND #148,150,155, VCU 246 MANAGEMENT AREA C34  
159

ACRES 51 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1990 Flight Line 34B Photo #'s 2784-270

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 1050 to 1700 ft. Aspect: S to SE Slope: 10 to 70 %

Landform: Smooth, frequently dissected mountainslopes and footslopes.

Slope Configuration: Convex to even Site Index (Farr): 57

Plant Association: Mountain hemlock/blueberry and mixed conifer/blueberry/deer cabbage.

Soil: SMU = 3238D, 5296B

Parent Material: Colluvium/residuum.

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam/gravelly silt loam/peat.

Potential of Mass Failure: Low to moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (walk-thru by logging specialist) Date 08/14/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Low to moderate

Damaging Agents: Fairly decadent in some areas, with pinicola, butt rot, basal scars, forked tops and dead tops. Old blowdown in some areas.

Species Composition (trees 5+" DBH): %WH %MH %AC %SS

Stand Structure: Appears to be a mixed conifer uneven aged stand. Hemlock and cedar predominate in overstory, with spruce present on lower slopes. Decadent condition in overstory.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 60%-80% blueberry; 10% rusty menziesia; <5% copperbush, devil's club and skunk cabbage.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1392 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Split yard or full suspension over v-notches. Recommend at least partial suspension because of high haz. soils. Fisheries - No concerns.

Hydrology - C.III stream within the unit, which is in a high mass wasting hazard area. Objective: protect C.III channel, reduce erosion. Split yard on the C.III, log suspension recommended, employ erosion prevention measures. BMPs 13.11, 13.9, 13.16.

Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III streams within unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of stand information, likelihood of blowdown and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit; cedar will likely regenerate in wetter areas, with spruce regenerating in areas of sufficient soil disturbance to expose mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** Temporary spur road accesses unit off Rd.#7623. This spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for slackline and running skyline. Require directional felling and yard away from v-notches. Require partial suspension for entire unit due to high hazard soils; full suspension over v-notches that can't be split yarded.

**Unit Boundary:** Provide for windfirmness.

**Streamside Management:** C.III stream within the unit, which is in a high mass wasting hazard area. Objective: protect C.III channel, reduce erosion. Split yard v-notches, log suspension recommended.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell away from streams. Partial suspension over entire unit. Close, waterbar, and grass-seed temp. spur.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



UNIT # 4260 of the SE Chichagof Timber SaleSTAND #159, 305VCU 246MANAGEMENT AREA C34ACRES 13 Determined How: GIS By Whom: T. Falkner Date: 1991Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194

Scale: 1:12000

1/4 Quad ID: SITC4NW**SITE CHARACTERISTICS:**Elevation: 900 to 1200 ft. Aspect: S Slope: 20 to 80 %Landform: Mtslopes with avalanching or mass wasting/frequently dissected ftslopesSlope Configuration: Convex Site Index (Farr): 87Plant Association: Western hemlock/blueberry/devil's club, sitka spruce/  
blueberry/devil's club and mountain hemlock/blueberry.Soil: SMU = 3002E, 5234BParent Material: Colluvium/residuumSoil Depth: (cm) 150 Soil Texture: Sandy loam/gravelly silt loam.Potential of Mass Failure: Moderate to high**STAND CHARACTERISTICS:**Stand Examination: Type None (Walk-thru by logging specialist) Date 08/14/91Stand History: Wind/slide processes appear to be the major stand processesPotential Windthrow Hazard: ModerateDamaging Agents: Some pini and pinicola in the unit. Old blowdown scattered  
throughout the unitSpecies Composition (trees 5+\" DBH): 80-90 %WH %MH %AC 10-20%SSStand Structure: Uneven aged stand of hemlock with minor amounts of spruce.Generally good form. Understory not well stocked, with saps/poles primarily in  
canopy gaps.Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH): Ground Cover: 30%-40% blueberry; 5%-20% devil's club; <10% salmonberryTotal Net Sawlog Vol/Acre: MBF Total Unit Vol: 439 MBFVolume by Species: H MBF AC MBF SS MBF**SUMMARY OF OTHER RESOURCES AND VALUES:**Soils - Ensure south boundary is outside stream buffer. Split yard on v-notches  
Recommend partial suspension at a minimum to protect hazardous soils. Full  
suspension would be preferable.Fisheries, Hydrology, Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce will likely be a minor stand component, confined primarily to areas adjacent to the stream and areas where sufficient soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Accessed by temporary road. Close, waterbar and grass seed after use.

**Logging System:** Designed for running skyline. Directional fell away from Class II buffer. Require partial suspension for entire unit due to high hazard soils.

**Unit Boundary:** Provide for windfirm boundary. Incorporate TTRA buffer into boundary layout.

**Streamside Management:** Class II stream adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Split yard v-notches. Close, waterbar, and grass-seed temp. spur road.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for thinning 14-16 years after harvest. Base needs on results of exam.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on results of exam		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4261 of the SE Chichagof Timber Sale

STAND # 159,311

VCU 246

MANAGEMENT AREA C34

ACRES 29 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 950 to 1450 ft. Aspect: S to SE Slope: 5 to 80 %

Landform: Frequently dissected footslopes and alluvial fans.

Slope Configuration: Convex to even Site Index (Farr): 94

Plant Association: Western hemlock/blueberry/devil's club and sitka spruce/  
blueberry/devil's club.

Soil: SMU = 5234B, 3002E

Parent Material: Alluvium/colluvium

Soil Depth: (cm) 33-40&150 Soil Texture: Silt loam

Potential of Mass Failure: Low to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru by logging specialist) Date 08/14/91

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: Some rot, pini, and pinicola present. Old blowdown scattered  
throughout stand.

Species Composition (trees 5+\" DBH): 80-90 %WH %MH %AC 10-20%SS

Stand Structure: Uneven aged hemlock stand with small amounts of spruce. Gen-  
erally good form. Understory is understocked, with saps/poles confined to  
canopy gaps.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): in. Ave. TPA (trees 5+\" DBH):

Ground Cover: 30%-35% blueberry; 5%-20% Devil's club; <10% salmonberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1004 MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Recommend full suspension in upper third of unit and across v-notches to  
protect unstable soils. Partial suspension over rest of unit.

Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

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**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

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**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

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**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce will likely be a minor stand component, confined primarily to areas adjacent to the stream and areas where sufficient soil disturbance has exposed mineral soil.

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**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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**Intermediate Treatments:** No treatments planned at this time.

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**Transportation System:** Accessed by temporary road. Close, and remove temporary bridge, waterbar, and grass seed after use.

**Logging System:** Designed for running skyline. Require directional felling away from Class II stream buffer. Require partial suspension for entire unit due to high hazard soils.

**Unit Boundary:** Provide windfirm boundary. Incorporate TTRA buffer into unit boundary layout.

**Streamside Management:** No concerns. Class II stream adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell away from Class II stream. Partial suspension to minimize soil disturbance. Close, waterbar, & seed temporary road.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** Evaluate for thinning 14-16 years after harvest. Base needs on results of exam.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on results of exam		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4270 of the SE Chichagof Timber Sale

STAND # 292,296

VCU 246

MANAGEMENT AREA C34

ACRES 12 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194

Scale: 1:12000

1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 750 to 900 ft. Aspect: E to SE Slope: 55 to 70 %

Landform: Smooth, infrequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 58

Plant Association: Western hemlock/blueberry and mixed conifer/blueberry.

Soil: SMU = 3551D, 6174B

Parent Material: Colluvium/residuum

Soil Depth: (cm) 25-40 Soil Texture: Silt loam to gravelly silt loam.

Potential of Mass Failure: Low to moderate

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru by logging specialist) Date 05/26/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: \_\_\_\_\_

Species Composition (trees 5+\" DBH): \_\_\_\_\_ %WH \_\_\_\_\_ %MH \_\_\_\_\_ %AC \_\_\_\_\_ %SS

Stand Structure: Uneven aged stand of hemlock with minor amounts of cedar and spruce.

Ave. Height: \_\_\_\_\_ ft. Basal Area: \_\_\_\_\_ sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): \_\_\_\_\_ in. Ave. TPA (trees 5+\" DBH): \_\_\_\_\_

Ground Cover: 80% blueberry.

Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 322 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Recommend partial suspension due to wet soils. Ensure south boundary of setting 1 is above slope break of v-notch.

Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams adjacent to and below unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will likely be minor stand components, with cedar regenerating in wetter areas and spruce in areas where sufficient soil disturbance exposes mineral soil

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Accessed by temporary spur roads off of Rd.#7623.  
Temporary spur roads will be closed, waterbarred, & grass-seeded after harvest.

**Logging System:** Designed for running skyline. May need artificial guy anchors due to landing location proximity to muskeg.

**Unit Boundary:** Ensure south boundary of setting 1 is above slope break of v-notch. Provide windfirm boundary.

**Streamside Management:** No concerns. Class III stream adjacent to south boundary of unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity.

Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell away from Class III stream. Close, waterbar, & seed temp. roads. Maintain drainage (culverts, ditches) on Rd. 7623.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4271 of the SE Chichagof Timber Sale

STAND #160,297,299

VCU 246

MANAGEMENT AREA C34

ACRES 42 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194

Scale: 1:12000

1/4 Quad ID: SITC5NE

SITE CHARACTERISTICS:

Elevation: 900 to 1350 ft. Aspect: N to NW Slope: 55 to 75 %

Landform: Smooth, infrequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 68

Plant Association: Western hemlock/blueberry

Soil: SMU = 3562D, 3551D

Parent Material: Colluvium, residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Loam to silt loam.

Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru by logging specialist) Date 05/26/91

Stand History: Wind processes appear to be the major stand development influence

Potential Windthrow Hazard: Moderate

Damaging Agents: \_\_\_\_\_

Species Composition (trees 5+\" DBH): \_\_\_\_\_ %WH \_\_\_\_\_ %MH \_\_\_\_\_ %AC \_\_\_\_\_ %SS

Stand Structure: Uneven aged stand of hemlock.

Ave. Height: \_\_\_\_\_ ft. Basal Area: \_\_\_\_\_ sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+\" DBH): \_\_\_\_\_ in. Ave. TPA (trees 5+\" DBH): \_\_\_\_\_

Ground Cover: 80% blueberry.

Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 1135 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Split yard on v-notches. Recommend at least partial suspension on wet soils along lower end of unit, especially in setting 1.

Fisheries, Hydrology, Wildlife - No concerns.



MANAGEMENT DIRECTION:

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will likely be minor stand components, with cedar regenerating in the wetter areas and spruce regenerating where sufficient soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

**Transportation System:** Accessed by Rd.#7623 and temporary spur road off Rd#7623.  
Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

**Logging System:** Designed for running skyline. Require directional felling away  
from and split yard v-notches.

**Unit Boundary:** Provide windfirm boundary. Incorporate TTRA buffer into unit  
boundary layout.

**Streamside Management:** No concerns. Class II stream adjacent to unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity.  
Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell away from and split yard v-notches. Close,  
waterbar, & seed temp. road. Maintain drainage (culverts, ditches) on Rd. 7623.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4280 of the SE Chichagof Timber Sale

STAND #159,300,305

VCU 246

MANAGEMENT AREA C34

ACRES 33 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194

Scale: 1:12000

1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 820 to 1450 ft. Aspect: S to SE Slope: 55 to 80 %

Landform: Smooth, infrequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 74

Plant Association: Western hemlock/blueberry and mixed conifer/blueberry.

Soil: SMU = 3562D, 3002E

Parent Material: Colluvium/residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam/loam/sandy loam

Potential of Mass Failure: Moderate to high

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru by logging specialist) Date 08/14/91

Stand History: Wind/slide processes appear to be the major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: Fairly high decay, moderate defect with pini and pinicola common in most areas. High incidence of rot /decay in areas. High amount of cull in higher elevations. Old blowdown in some areas.

Species Composition (trees 5+" DBH): 40 %WH 20 %MH 35-40 %AC 0-5 %SS

Stand Structure: Pockets of poles (10"-12" DBH). Generally larger DBH trees with smaller diameter trees at higher elevations. Uneven aged mixed conifer stand.

Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):

Ground Cover: 40%-80% blueberry.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: MBF

Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Recommend full suspension in setting 1 due to hazardous soils. Split yard on v-notches. Recommend at least partial suspension in setting 6 and on wet soils along lower boundary.

Fisheries, Hydrology, Wildlife - No concerns.

MANAGEMENT DIRECTION:

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams within unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. General decadence of stand and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.



**Transportation System:** Accessed by a temporary road. Close, waterbar and grass seed after use.

**Logging System:** Designed for running skyline. Require directional felling away from and split yard v-notches. Require partial suspension for settings 1,2,6 due to high hazard soils; full suspension over v-notches that cannot be split yarded.

**Unit Boundary:** Provide windfirm boundary.

**Streamside Management:** No concerns. Class II stream located below unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell away from and split yard v-notches. Close, waterbar, and grass-seed temporary spur roads. Maintain drainage on Rd. 7623.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William R. Dougan  
 Certified Silviculturist

Date: 08 /01 /92

INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4290 of the SE Chichagof Timber Sale

STAND #289, 293

VCU 246

MANAGEMENT AREA C34

ACRES 35 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194

Scale: 1:12000

1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 700 to 1300 ft. Aspect: E Slope: 10 to 75 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 50

Plant Association: Mountain hemlock/blueberry and mixed conifer/blueberry

Soil: SMU = 3238D, 3274B

Parent Material: Colluvium/residuum

Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam/gravelly silt loam

Potential of Mass Failure: Moderate to high

STAND CHARACTERISTICS:

Stand Examination: Type None Date / /

Stand History: Wind/slide processes are likely the major stand processes

Potential Windthrow Hazard: Moderate

Damaging Agents: \_\_\_\_\_

Species Composition (trees 5+" DBH): \_\_\_\_\_ %WH \_\_\_\_\_ %MH \_\_\_\_\_ %AC \_\_\_\_\_ %SS

Stand Structure: Uneven aged mixed conifer stand.

Ave. Height: \_\_\_\_\_ ft. Basal Area: \_\_\_\_\_ sq.ft. Ave. Age: 150+ yr.

Ave. DBH (trees 5+" DBH): \_\_\_\_\_ in. Ave. TPA (trees 5+" DBH): \_\_\_\_\_

Ground Cover: 60%-80% blueberry

Total Net Sawlog Vol/Acre: \_\_\_\_\_ MBF Total Unit Vol: 943 MBF

Volume by Species: H \_\_\_\_\_ MBF AC \_\_\_\_\_ MBF SS \_\_\_\_\_ MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Recommend partial suspension at a minimum because of hazardous soils. Ensure north boundary is above slope break of deep v-notch.

Fisheries, Hydrology, Wildlife - No concerns.



**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.

**Transportation System:** 70+ foot bridge to access this unit. Temporary spur roads needed to access landings. Temporary spur roads will be closed, water-barred and grass-seeded after harvest.

**Logging System:** Designed for running skyline and slackline. Require directional felling away from and split yard v-notches. Require partial suspension for entire unit (high hazard soils). May need artificial guy anchors for landing at setting 3.

**Unit Boundary:** Ensure north boundary is above slope break of deep v-notch. Layout boundary for windfirmness.

**Streamside Management:** No concerns. Class III stream adjacent to unit on north.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity.

Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell and split yard v-notches. Partial suspension for entire unit. Close, waterbar, and seed temp. spur. roads.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
 Certified Silviculturist

Date: 08 /01 /92



INTEGRATED SILVICULTURE PRESCRIPTION

Page 1 of 3

UNIT # 4300 of the SE Chichagof Timber Sale

STAND #244,284,290, VCU 246 MANAGEMENT AREA C34  
291,294

ACRES 82 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-196  
Scale: 1:12000  
1/4 Quad ID: SITC4NW

SITE CHARACTERISTICS:

Elevation: 550 to 1300 ft. Aspect: SE Slope: 10 to 70 %  
Landform: Smooth, infrequently dissected mtslopes/frequently dissected ftslopes.  
Slope Configuration: Convex to even Site Index (Farr): 64  
Plant Association: Western hemlock/blueberry

Soil: SMU = 3551D, 5261B  
Parent Material: Colluvium/residuum/ablation till  
Soil Depth: (cm) 25-40&150 Soil Texture: Silt / gravelly loam.  
Potential of Mass Failure: Low

STAND CHARACTERISTICS:

Stand Examination: Type None (Walk-thru by logging specialist) Date 07/19/91  
Stand History: Wind processes appear to be the major stand development influence  
Potential Windthrow Hazard: Moderate  
Damaging Agents: Moderate defect and decay with some pini and pinicola. Frost cracks and broken tops are common in areas. Pistol butts common on steeper slopes. High weather injuries and old blowdown present in some areas.  
Species Composition (trees 5+" DBH): 30-50 %WH 20-40 %MH 20-40 %AC 5-10 %SS  
Stand Structure: Generally 18"-24" DBH trees with scattered larger diameter trees. Some patches of poles. Generally not a brushy area. Uneven aged stand of hemlock/cedar with minor amounts of spruce.  
Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  
Ave. DBH (trees 5+" DBH): 18-24in. Ave. TPA (trees 5+" DBH):   
Ground Cover: 80% blueberry; 5%-15% rusty menziesia.

Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 2254 MBF  
Volume by Species: H MBF AC MBF SS MBF

SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Split yard on v-notches. Area of hazardous soils near backline at intersection of settings 6 and 8; Recommend adjusting backline around it.  
Recommend partial suspension over wet soils along lower boundary.  
Fisheries, Hydrology, Wildlife - No concerns.

**MANAGEMENT DIRECTION:**

**Forest Plan:** VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

**Unit Objectives:** Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams within unit.

**Alternatives Considered:** Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, general decadence of stand and desire to encourage cedar/spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

**MANAGEMENT PRESCRIPTION:**

**Regeneration Treatments:** Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

**Marking Guide:** Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

**Intermediate Treatments:** No treatments planned at this time.



**Transportation System:** Accessed by road 7623 on the bottom and on the top by a spur road. Spur road will be closed, waterbarred, & grass-seeded after harvest.

**Logging System:** Designed for running skyline. Require directional fell away from v-notches. May need artificial anchors for landings in settings 1-4 due to proximity to muskeg.

**Unit Boundary:** Layout boundary for windfirmness.

**Streamside Management:** No concerns. Class II stream located below unit.

**Wildlife Management:** See Reserve Trees.

**Reserve Trees:** 2 snags per acre left for wildlife and structural diversity. Refer to marking guide for instructions for marking.

**Erosion Control:** Directional fell and split yard v-notches. Close, waterbar, & seed temp. road. Maintain drainage (culverts, ditches) on Rd. 7623.

**Fuel Treatment:** None prescribed.

**Planting:** None prescribed.

**Animal Damage Control:** None prescribed.

**Vegetation Management:** None prescribed nor anticipated.

**Precommercial Thinning:** None prescribed nor anticipated.

**Commercial Thinning:** None prescribed nor anticipated.

**Final Harvest:** Evaluate for harvest 95-100 years after harvest.

**MONITORING PLAN:**

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: *William R. Dougan*  
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